

"VENETO-SARACENIC" METALWORK

Objects and History

by

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I declare this is my own work.

April 1989.

Abstract

"Veneto-Saracenic" is the name given to a group of brass household objects inlaid with silver, traditionally believed to have been made during the 15th and 16th centuries by Muslim craftsmen living in Venice. This thesis examines the background to the belief and, by a close examination of the objects, attempts to throw light on the question.

Chapter 1 surveys the links, both commercial and diplomatic, between Venice and the Middle East in the late mediaeval period, exploring the trade relations with Mamluk Egypt and the career of the Turcoman leader, Uzun Hasan. His widespread campaigns prove of interest not only because of his diplomatic relations with Venice but also because the wide area ruled by the Aqqyunlu chief may explain the multiple influences found in the work of one master, Mahmud al-Kurdi, whose name is central to the "Veneto-Saracenic" school. This master's work is reviewed in some detail, attention being paid too to the *oeuvre* of another craftsman widely represented in the signed pieces, Zain al-Din. In this chapter earlier work of art historians into the question is also explored.

In order to place the inlaid metalwork in a wider contemporary context, Chapter 2 deals with the technique and history of decorating a base metal with precious inlay. It chronicles briefly the rise to popularity of the mode brought from the Jazira to Mamluk Egypt in the 13th century and then follows the fluctuating fortunes of the Mamluk economy as they are reflected in the contemporary objects. It also looks at the inlaid metalwork of Timurid Iran, for both Mamluk and Timurid influences are apparent in the "Veneto-Saracenic" objects. Evidence for the European techniques of the same period is sought from contemporary Western texts.

It is a basic tenet that although motifs may be copied, the arrangement of the designs is a subconscious aesthetic passed from one generation of craftsmen to the next. In face of the lack of

archival evidence, the author attempts to advance the understanding of late 15th and 16th century metalwork by analysing the individual motifs found on the objects. The more important of these have been drawn and assigned code numbers. The history of these and a brief summary of where they appear elsewhere is described in Chapter 3. The form and function of the objects, which include spherical incense burners, hemispherical and cylindrical boxes and covers, salvers, candlesticks, buckets and ewers, are also examined.

The thesis finishes with a handlist of the objects, the majority of which are unpublished, that are currently located in museums in Europe, the United States and Israel. Each object is described briefly by using code numbers of the principal motifs. In this way, three categories of objects have been distinguished - (A) Mamluk, (B) Anatolian or North-Western Iranian, and (C) European.

Introduction

The research into "Veneto-Saracenic" metalwork, the results of which are presented here, was an offshoot of an interest in the influence of Islam on late mediaeval Italy. The first object to attract the attention of the writer was the salver in the Isabella Stewart Gardner Museum, Boston (cat.no.166). In 1984, when I saw it, the piece stood without designation in a side corridor. The absence of any identification on so attractive an object proved intriguing and, as other museums were visited, it became apparent that a rich vein of metalwork objects, previously largely ignored, lay awaiting a systematic analysis. The research started with the assumption, following Lavoix (1862), that the household objects traditionally described as "Veneto-Saracenic" were made on Venetian soil, either within the Serenissima herself or in her dependencies, by Muslim craftsmen. The counter-argument by Professor Huth in 1970, that Venetian guild laws would not allow other nationals to work within her boundaries, was not backed by archival evidence and the objects were not analysed. My research set out to remedy the lacuna.

It quickly became clear that many more "Veneto-Saracenic" objects than were once thought to exist lay unpublished in Western museums. It became obvious too that the term "Veneto-Saracenic" was used as a convenient term to cover any inlaid brass object that was not immediately identifiable. Finally it became apparent that in most cases the only "Venetian" attribute was the existence on some typical pieces of Northern Italian shields, often without arms, and, in the case of the hemispherical covered box in London (cat.no.65) a bilingual signature by the master Mahmud al-Kurdi. Further study revealed that the corpus of pieces given by Professor Mayer (1959) to this master needed revision.

The present study, then, is an attempt to throw light on a group of inlaid metal household objects that first attracted the attention of Islamicists in the 19th century, although they had created some

interest among the *cognoscenti* of the 15th and 16th centuries. The pieces include spherical incense burners, hemispherical boxes and covers, cylindrical boxes, candlesticks, buckets and salvers. A severely pruned catalogue of all the "Veneto-Saracenic" objects known to me is used as the factual basis of this thesis, the many examples of similar appearance being cross-referenced by means of a break-down of individual decorative motifs. The more important of the motifs are treated to a short section in Chapter 3, which gives a minimal history and points to their appearance elsewhere as decoration on metalwork, architecture, manuscripts or ceramics. The study is founded on the premise that it is possible to group the objects on the basis of their individual motifs and the way the designer organised those motifs. A motif from any area can of course be copied but the basic approach, the aesthetic of how that motif is used, is a subconscious peculiarity of the individual master, and is passed from one generation to the next. The concept of a distinguishing aesthetic is not new; it was explored by Riegl in Stilfragen and more recently by Professor Gombrich in A Sense of Order. By applying the method to the "Veneto-Saracenic" objects and by analysing the motifs, it has been possible to divide the corpus into three main groups, here labelled A to C, the first two being Islamic and the third Western.

The main characteristic of the "Veneto-Saracenic" metalwork objects treated here is that they are made of brass (or possibly bronze, the exact alloy awaits laboratory tests), inlaid with silver and sometimes gold, and, more frequently, with a black organic substance. Their decoration is non-representational, other than debased floral stems or blossoms, and non-epigraphic, apart from the signatures of their makers. Significantly, the signatures belong to a single group. Significantly too, this group does not have Western shields as part of the decorative scheme, except for a covered box in the Louvre (cat.no.59), signed by Zain al-Din which has a shield with an unidentified coat of arms on the cover, and a closely analogous piece in New York (cat.no.95). However, a Western link is explicit too in the work of Mahmud al-Kurdi by virtue of the bilingual

signature on the covered box in the Courtauld Institute. It is also noteworthy that the objects are found in Western collections. Only one was bought in the Middle East and there seem to be no examples in Middle Eastern museums, so far as I have been able to discover, apart from the L.A. Mayer Memorial Institute in Jerusalem, which is a modern collection.

The results of the analysis seen in the context of other media of the period reveal that the groups were made in different artistic environments. Group A, whose motifs are arranged either concentrically or with an inward movement, shows the characteristics of Mamluk work. Most of the pieces seem to relate to the later Mamluk period, especially to the reign of Qa'itbay. It is not possible, I believe, to be more precise as to the exact provenance because of the lack of archival evidence or epigraphic detail.

Group B, on the other hand, has the characteristic of an engraved arabesque ground overlaid by linear divisions. The elements are arranged in a centrifugal motion, spreading outwards from a central point. The work is deliberately three-dimensional and is extraordinarily eclectic, using Mamluk, Persian, Anatolian and Jaziran motifs. It is mooted here that this group originated in the Turcoman lands centred in North-East Anatolia under the aegis of Uzun Hasan. The master Mahmud al-Kurdi is the pivotal figure here, probably working in the late 15th century; and another master is widely represented in the signed pieces, one Zain al-Din, probably working in the 16th century.

Group C seems to be of Western origin in that it copies Islamic inlaid metalwork but betrays a basic misunderstanding of the rules that governed the approach of metalworking workshops of Muslim masters. The central object here is a salver in Vienna (cat.no. 197), which bears the signature Nicolo Rugina da Corfu and the date 1550.

It must be stressed that there is only circumstantial evidence for these conclusions. Further information may surface which would overturn the tentative results of this study, just as a different approach to the scant facts available might produce different results. It is hoped, however, that the method of approach will prove helpful in a wider context, as it did in an analysis of "Timurid" ewers (Appendix I). So much remains unknown about this body of Islamic metalwork that any research into it is like stumbling in the dark along an ill-defined path. It is hoped that any faint beam of light, particularly in the form of objects exposed to view, should help future explorers. For this reason, the physical shape of the study precludes a formal "conclusion", because in a real sense the conclusion consists of the catalogue of objects, the majority of which have not previously been published. Whatever the defects of the historical analysis and speculations of the other chapters in the study, the catalogue should at least represent a significant step forward in the current understanding of "Veneto-Saracenic" metalwork. Once the size and nature of the corpus of these objects is clearly defined, the way is open for attempts at synthesis, for concerted efforts to discover the provenance of groups of objects, for speculations on their iconography and for a deeper analysis of their dominant motifs. For this reason, the establishment of the catalogue can be seen as the principal aim of the thesis.

In order to place these objects in context, the thesis opens with the history of previous research into the vexed question of the provenance of "Veneto-Saracenic" pieces, and a resumé of the trading conditions between Venice and the Middle East in the 15th and 16th centuries. It traces the main events of Uzun Hasan's rule, especially his diplomatic links with Venice and the Mamluk sultans, and it finishes with a breakdown of why the work of Mahmud al-Kurdi is thought to originate in the Turcoman kingdom.

Chapter 2 looks at the history of inlaid metalwork in the Levant. The technique of inlay is examined and the different ways of attaching a precious metal to a base one are described. The loss

of inlay in some examples allows the method to be seen with the naked eye. The techniques used changed with fashions in style. These are also traced. The mode for inlay with precious metal is followed from the Jazira to Mamluk Egypt, and thus covers the period between the 13th to the early 16th centuries. The fluctuating economic stability of the Mamluk lands have been shown to be reflected in the physical make-up of later objects. Also part of this section is an examination of Persian metalwork, especially the objects made in the time of Timur and his successors, for many of their characteristics are shared with Group B. Appendix I lists the typical "Timurid" ewers known to the writer, with a break-down of the motifs used in their decoration; these are separately drawn and each one is assigned an individual code number, listed in Appendix I, figs T1-T11. The "Timurid" group acts as a control for the "Veneto-Saracenic" pieces, for many are signed and dated. The analysis reveals an astonishing consensus of motifs used, except in two cases. It is suggested, in consequence, that these must be assumed to have been made not in Persia but further west, probably in northern Syria. The links with Persia shown by the shape of the two "rogue" ewers may, however, point to an Anatolian provenance, perhaps under Turcoman influence.

The Western interest in, and admiration of, Islamic inlaid metalwork in the 15th and 16th centuries, as expressed in contemporary Italian literature, may explain why so many objects were imported into Europe, and into Italy in particular. The Islamic techniques used for the inlay, as well as the aesthetic approach, offer further proof of the Middle Eastern provenance of the majority of the "Veneto-Saracenic" objects. The contemporary Italian writers make no reference to Muslim masters working in Italy. Vasari (1550), indeed, referred specifically to the import of metalwork objects from the Levant, and a survey of some of the relevant texts is undertaken in this chapter.

Chapter 3 starts with a short discussion of each category of "Veneto-Saracenic" object. It continues with a break-down of the motifs and their history, each of the main elements being assigned a code number, both to aid description and for cross-reference.

The final section of the thesis is the catalogue, which, as I have explained, is the heart of the study. This is confined to objects which are inlaid with non-representational decoration and without inscription, other than the signatures of the craftsmen. The decision to exclude objects that have only engraved decoration, although in the style of the inlaid pieces, is due to the exigencies of space. For a similar reason, objects that have previously been included under a wide "Veneto-Saracenic" umbrella because they bear European shields, also do not appear. This means that the "Priuli" cup in the Victoria and Albert Museum (inv.no.311-1954, Melikian-Chirvani:1974/2) and the "Venier-Molin" salver in the Bargello (inv.no.C 350, Spallanzani:1985), to name but two examples, are omitted, for the former has a Mamluk inscription and the latter is decorated with figures of men and animals. This does not mean that significant objects have been weeded out. On the contrary, no pieces have emerged with the name of a patron or date, apart from the salver in the Österreichisches Museum für Angewandte Kunst (inv.no.G0.81, cat.no.197), mentioned above. With this caveat, all the objects currently known to the writer are listed. Nevertheless there are notable gaps. It has proved impossible to see all the pieces, some being unavailable because they are in an inaccessible store, while some are beyond the reach of the writer. For example, the Musée des Arts Décoratifs in Paris has many objects in store which I was unable to examine. Of the doubtless many examples in the State Hermitage Museum, Leningrad, only the salver signed by Mahmud al-Kurdi is included. The objects have not yet been published, and for financial reasons it was not possible for me to visit the museum to uncover what must be a rich source. It is worth underlining that this is a constantly expanding list, for two

additional objects appeared on the art market as recently as April 1989. This points to the existence of further treasures owned privately but as yet unknown.

The catalogue is primarily a hand-list, giving the object, the museum and the inventory number, together with a skeletal description of appearance (where possible) by means of the coded motifs; however, in some cases, the pieces are described more fully. The restrictions of space have made it necessary to give a fuller description only to those that are important because they are signed. The motifs that appear with most regularity have been drawn and are reproduced in figures 1-82. The photographs are again restricted in number by external, and mainly financial, factors. It is hoped that the published version of the study will include both a more fully descriptive catalogue entry for each object and a full set of illustrations.

To all the patient, helpful and supportive staff in museums on both sides of the Atlantic, I would say a heartfelt thank-you. In a time of increasing financial stringency, when searchers-after-facts in the world of the arts are out of fashion, it is wonderful how much generosity is shown to the humble student. I am also deeply grateful to the Gladys Kriebble Delmas Foundation for their generosity in awarding me a Fellowship which allowed me to work in the Museums and Archives of Italy, and to the British School of Archaeology in Jerusalem, whose Travel Grant meant I could visit Cyprus and Israel. I would thank too the Fine Art Department of Edinburgh University whose individual members, especially Robert Hillenbrand, Roger Tarr, John Higgitt and Michael Bury, have been unfailingly and enthusiastically generous with their time, insight and scholarship. To Joe Rock I would say a special thank-you for his help with photographs. I would like to thank all my family, in particular Graeme, Hamish and Caroline, for their help and I would offer an apology for the hours they have had to spend in my support, for

"holidays" spent touring museums and for general neglect over the years of my work, and a grateful recognition that without their patience, this study would not exist.

Chapter 1

Historical Context

Section 1. Origins of the idea of a Venetian Provenance.

It is perhaps surprising, given the links in the metalwork decoration treated here with the art of the Mamluk Near East and Timurid Iran, that the question of a Venetian provenance ever arose. The earliest supporters of the idea of Muslim craftsmen resident in the Serenissima do not even seem to have been aware of the existence of the bowl and cover in the Courtauld Institute with the dual signature in Arabic (or Persian) and Latin scripts, (inv.no.76, Gambier-Parry 79, cat.no.65 signed by Mahmud al-Kurdi, Pls 1-4) although Henri Lavoix mentioned a ewer, then in the Salomon de Rothschild Collection, (now Musée de Louvre, inv.no.R 57, cat.no.263, pl.5) with the dual signatures of al-Mu'allim Mahmud and Mamut in an article of 1877 (Lavoix:1887,28). It is, then, first necessary to chronicle how scholars came to believe that a community of Muslim craftsmen were working in Venice in the 15th and 16th centuries.

The trail leads back to the discovery, sometime before 1800, of a steel casket, inlaid with gold and silver, in a bric-à-brac shop belonging to a dealer, Alvise Meneghetti, in a side street of the Rialto district in Venice. It was bought in 1832 by the Milanese Marchese Trivulzio, reputedly for a high price, and was still, in 1889, in the Trivulzio Collection. It has since vanished from sight, known only through the engravings published by Abbot Mauro Boni in Venice in 1800 (Pl.6)(Boni:1800). The casket, which measured 11 ins long by 7 ins wide by 5 ins high, was decorated on the outside of the walls by a central oval medallion and two half-medallions filled with inlaid arabesques. These are entirely Western in concept.⁽¹⁾ It also had maps on both the inside and outside of the lid, which bore the signature PAULUS.AGEMINIUS.FACIEBAT and the titles of the maps "*Tabula moderna hispaniae*" and "*Tabula moderna*

Francie." The map on the outside of the lid was of Italy, Dalmatia, Albania and the adjacent islands (in other words states dependent on the Venetian Republic) and it is probably significant that those inside were the countries whose history was most closely bound up with that of Italy in the early 16th century. The box also had arabesques on the inside walls, and on the base was a heart-shaped "planisphere". The maps were engraved on plates of gold, the lettering inlaid in silver. Boni saw the influence of a 1511 edition of Silvano in the maps' appearance, which gave him a *terminus post quem*. The interest to the humanist abbot lay in the inlay technique as well as the Ptolemaic maps, whose place names were given in Italian, while the rest of the epigraphy was in Latin. He described the inlay technique in terms of enamelling, linking it to the classical world and to Mediaeval and Renaissance Europe. He also linked the technique to the world of Islam, quoting "Abulfeda's" record of an object "*tarsia d'oro e d'argento*" dating to the time of Charlemagne, and referring to a globe dated 622/1225 illustrated by Assemani in Padua in 1790. Boni underlined that in the Muslim technique, or "*opera dell'agemini*", the decorative inlay is not fused to the incised ("*intagliate*") base metal, but laid over ("*sovrapposto*") the polished steel "*con uno stucco tenace in si delicata maniera*" that the result resembled a painting in different coloured metals. Boni, himself from Milan, thought that Paulus took his name from a village outside Milan called Ghemma. However, a more learned colleague, the Abbot Daniele Francesconi, from Venice, also writing on the object in 1800, linked the name Ageminius with the method of inlaying work described as "*lavori all gemina, alla gemina*" (Francesconi:1800). He also identified Paulus with a Messer Paolo Rizzo, who featured in a book by Leonardo Fioravanti (1572,67) as a goldsmith working in Venice in the Ruga dei Orefici "at the sign of the little dove": in other words, he saw Paulus as a Venetian.⁽²⁾

The casket was mentioned again in 1859 in the catalogue of the Venetian Correr collection by Vincenzo Lazari, where a steel plate inlaid with gold and silver showing a map of Europe (inv.no.1162) was ascribed to Paulus Ageminius (Lazari:1859,218). In a preface to the

section dealing with inlaid metalwork (214-215), Lazari examined the technique of inlaying metal, calling it *lavori all 'agemina ed alla damaschina* and later *la intarsiature, o per dirla più propriamente, la incassature di fili e di sotilissime laminette d'argento e d'oro* (214), attributing its origins to classical Rome, whence it was transported to the East, to be re-imported into Italy in the 15th century. He quoted Vasari who, in the Introduction to the Lives,⁽³⁾ published in 1550, drew attention to the vogue current in his day for arms of steel decorated with arabesques inlaid in gold, in a technique called "*tausia*" or "*all damaschina*"; for, said Vasari "*per lavorarsi di ciò in Damasco e per tutto il Levant eccellentemente.*" Lazari also pointed to Girolamo Ruscelli who, in his 1561 Espositioni et introduktioni universali sopra la geografia di Tolomeo, talked of a map of the world "*di lavoro azimino o di tausia, che oggi lo dicono, cioè incavato il rame et empirlo con filetti d'argento o d'oro.*" Lazari, interestingly enough, did not mention Benvenuto Cellini here (although he did later in his Preface) but drew the conclusion from these two mid-century Italian authors that the term *tausia* was synonymous with work *alla damaschina* or *all'azzimonia*.⁽⁴⁾ it is worth underlining that Cellini, whose description of his own inlay technique in relation to that of the "Turks" will be discussed below, was referring to arms of steel inlaid with gold (a technique for which Safavid Iran was understandably famous) while Ruscelli was referring to copper or bronze (*rame*) inlaid with silver or gold wires (*filetti*), as was Vasari, who described the technique of hammering the wires into an undercut base metal (Maclehose:1960,280). This would seem to indicate that it was the final effect rather than the precise technique that was being described by the terms *alla damaschina*, *alla turchesca* and *all'agemina/azzimonia*. Lazari went on to explain how the expression *azzimonia* was in fact the same term as *agemina*, transformed by the soft Venetian dialect that turns "Gian" into "Zuan", "Giugno" into "Zugno", "la Giunta" into "la Zunta" and so on.⁽⁵⁾ The term *agemina* in turn derived from the Arabic *al-'ajam*, meaning Persian or non-Arab, with overtones of barbarian or speaking incorrect, unintelligible Arabic (Lane I:1966; Steingass: 1892,837). Moreover, it was a term already synonymous in Italy with

Persia or the Persian language by the 15th century. Significantly, however, as Hans Huth pointed out in his article discussed below (Huth:1970,59), Lazari made no mention of any tradition of Muslim craftsmen working in Venice, which he would have done had the idea been current in Venice in the 1850s. Instead Lazari stressed that the Italian work was in imitation of objects brought from the Levant, just as Cellini and Vasari had seemed to indicate by their comments.

The concept that Muslims were working on Italian soil seems to have originated with Henri Lavoix who, three years after Lazari (whom he did not mention) published an article in the Gazette des Beaux Arts entitled "Les Azziministes" which featured the Paulus Ageminius casket (Lavoix:1862). In it the Frenchman suggested delicately that the civic loyalties of Boni and Francesconi might explain their assignment of Milanese or Venetian origins to Paulus Ageminius, and in particular stating that Fioravanti was mistaken in identifying him with Paulo Rizzo, for the dates did not correspond (74). He asserted that the art of "*damasquinerie*" was entirely Oriental and that Theophilus had underlined the expertise of the Arabs in the skill. However, Lavoix seldom gave the precise derivation of his information, which seems frequently to be inaccurate. Theophilus, for example, mentioned the Arabs for their "repoussé or casting or openwork" (Theophilus:1979,13) and not for inlay, as Lavoix had stated, for which Russia is cited (specifically "the working of enamels and variegation with niello", Theophilus:1979,13).⁽⁶⁾ After a dissertation on the inlaid objects from Mosul and her Mamluk neighbours in the 12th and 13th centuries, Lavoix went on to say that Italy imitated or even copied the Muslim arts, in particular the textiles. Quoting an unidentified source, (67, "*nos villas, ... nos jardins en fleurs, vous les verrez en Roumanie, en Grèce, à Trebizonde, en Syrie, en Arménie, en Egypte; c'est là que nous trouvons à la fois et nos profits et nos plaisirs; c'est là que demeurent, pendant des séries d'années, nos enfants et nos neveux*"), he asserted that the Venetian merchant establishments in the Muslim lands took with them craftsmen from their own country who worked alongside the Arabs in their workshops. After the fall of Syria, he

said (by which he presumably meant the fall of Acre in 1291), a mixed race of Venetian fathers and Syrian mothers was welcomed back into the Serenissima, bringing with it the skills learned in the Muslim East. In support of this hypothesis, Lavoix listed the Kinsica of Pisa, berated by the poet Donizo in the 12th century for its foreign population (69-70), a street in Ferrara called Via Sarracena, and Turkish and Saracenic quarters in Venice (70).⁽⁷⁾ He named the Campicello dei Mori too in support of his thesis, but this probably refers not to "Moors" but to the Mastelli family who traded in the Morea.⁽⁸⁾ However, at this time he never stated in so many words that the art of "*damasquinage*" was practised by Muslim craftsmen on Venetian soil, but rather that the objects were either imported or copied by Western metalworkers trained in the oriental style, *all-gemia*, *alla gemina* or "in the Persian manner" (72). Here Lavoix was citing the Venetian Pietro della Valle who, in 1610, had written "*Di maniera che in queste parti tanto è dir Parsi, quanto Agiami : dal qual nome Agiami deriva nostro italiano dei lavori all'Agiamina ...*" At the beginning, claimed Lavoix, quoting Jacopo Gastaldo and Paolo Lomazzo, the term was applied in particular to the inlaying of steel arms and armour, and only later as a general description of the inlaying technique applied alike to steel, brass or copper, although, as seen above, both Ruscelli and Vasari include copper, bronze and brass among the metals inlaid with precious metal (72). In the style of his age, Lavoix never gave precise examples or references but relied on his reputation to back his statements. On the basis of the single unnamed source quoted above, for example, he assumed that the Italian "colonies", as he called them, in the cities of Aleppo, Damascus, the Morea, Cairo and so on were "half Oriental" (66) and shared fully in the life of the Muslim community, thus enabling the skills of the Arabs to be transmitted to the Christians. He made no reference to the time lapse between the 13th century, when he claimed the fall of Syria resulted in a mixed race returning to Venice, and the 16th century, which is the date he assumed for the bulk of the "Veneto-Saracenic" metalwork. Nor did he comment on the fact that the Franks never held Damascus, which was the main centre for the metalworking industry (see Ch. 2), while there is little

evidence of any major metalworking industry in Palestine. However, despite the weaknesses in his argument, Lavoix' theory, conceived over a century ago, was generally accepted by scholars without being seriously questioned until 1970, as we shall see.

Section 2 : European connections with Syria and Egypt. Trade.

The picture painted by Heyd in his fundamental work (Heyd:1936, Vol. II, Ch. VII "L'Égypte et la Syrie", 427-497) is quite different to that portrayed by Lavoix. The Muslims, far from welcoming the "Franks" with open arms, apparently found their presence on Mamluk soil a minor irritation. The Muslim chroniclers,⁽⁹⁾ for example, do not mention either the presence of foreign residents⁽¹⁰⁾ or the various European embassies to the Sultan's court.⁽¹¹⁾ The accounts of travellers like Felix Fabri (Fabri:1892-7), Jean Thénaud (Thénaud:1530) and Bernhard von Breydenbach (von Breydenbach:1486) make it clear that the Western visitors to Egypt were kept completely separate from the local inhabitants, literally under lock and key at night, and the long-term residents too were more or less incarcerated in their own quarters, or *fondachi*, with their own *bailo*, chaplain, even bread ovens and baths (Heyd:1936,434). On Fridays, during the hours of prayer, the Christians were not allowed onto the streets, not, as a Dutch visitor to Cairo in 1482, Joos van Ghiste, maintained, to ensure their safety but, according to Heyd (431), because an ancient prophecy had foretold a Christian attack on a Friday, which was indeed the day on which Peter I of Cyprus had taken the town (Heyd:1936,431, quoting Mas Latrie, Histoire de Chypre, II, 275,280 ff). Traders from the West had their own separate port of arrival at Alexandria, facing north, while the ancient port, facing west, was reserved for Muslims (Heyd:1936,430-431). As soon as the Christians had dropped anchor, they were boarded by the Sultan's officers who checked the names and nationalities of the voyagers and then physically removed the sails and rudder to prevent the possibility of a departure without full payment of taxes.⁽¹²⁾ The

number of days each ship was allowed to stay in harbour was fixed before leaving the home port, at least in the case of the Venetians, the period being called the *muda* (from *mutare*, to exchange, i.e. to trade; Heyd:1936,453). If the ships were prevented from leaving on time by bad weather, no further trading was allowed.

Contrary to any idea of the Franks being welcomed by the populace, as Lavoix claimed, the sources are filled with accounts of local harassment, despite the high taxes on goods which were a considerable source of income to the Sultan. The taxes levied on spices by the Sultan, which doubled their price in Europe (Heyd:1936, 448-451), were as vital to the Mamluk economy as the merchandise imported from the West (Heyd:1936,441). Metals and wood in particular were needed for Mamluk armaments, but other goods too were imported into Egypt as we shall see. However, to give but one example of the type of problem facing the Christian merchants, on 22 July 1472, the Venetian Signoria gave instructions to Giovanni Emo, the Venetian envoy, to bring before Qa'itbay the mistreatment of Venetian nationals in Syria. The Doge referred to Venetian merchants being held responsible for Uzun Hasan's hostilities in a letter dated 5 July 1473 (Wansbrough:1961,202). In petty retaliation for their multiple grievances, the Venetian *fondaco* in Alexandria kept a pig, of course particularly abhorrent to the local Muslim citizens (Heyd:1936,431). Whenever there was an "incident" involving a Westerner of whatever nationality, the local Venetian, Genoese or Florentine bailiff was held responsible and kept hostage until the wrong had been righted.⁽¹³⁾ The Westerners had no rights over their *fondaco*, which was built and maintained by the Egyptian government (Heyd:1936,431).⁽¹⁴⁾ Few remained as long term residents; they treated the period rather as a "foreign posting" or training scheme for young Europeans in commercial skills. For example, in 1422 twelve young Florentines accompanied ambassadors Carlo Federighi and Felice Brancacci to Egypt to study commercial practice in Alexandria.⁽¹⁵⁾

Among the many problems confronting the Western traders were changes in foreign policy. In 1421, for example, the privileges granted by Sultan Shaikh al-Mahmudi to the Venetians, with whom he had been on good terms, were suppressed by his successor, Tatar, who only allowed the Venetians to stay for a maximum of four months (Heyd:1936,473). Some Venetians in Alexandria found a way round the problem by becoming subjects of the Sultan but without the full rights of citizenship, a move strongly opposed by the Signoria in Venice, which demanded that the merchants should renounce their semi-Egyptian nationalisation, and leave Egypt within a month or be fined 500 ducats. The Serenissima also immediately⁽¹⁶⁾ sent out two ambassadors, Bernabo Loredano and Lorenzo Capello, to demand that the decree be overturned. They arrived to find that Tatar had died in the meantime and his successor, the Sultan Barsbay, was happy to renew the old privileges in a treaty dated 23 April 1422.⁽¹⁷⁾ Unfortunately soon afterwards there was further trouble with the Catalans and anyway, Barsbay turned out to be not only a fanatical Muslim and a despot but also greedy, his monopolies on pepper and other spices, sugar-cane and raw cotton forcing prices to rise almost threefold.⁽¹⁸⁾ Even though his successor, Jaqmaq (1438-1453), was less of a tyrant, the monopoly continued and he restricted residence to six months (Sanuto,1074; Heyd,481). An envoy from Doge Francesco Foscari in 1442, Andrea Donato, succeeded where others had failed in getting prisoners and goods released (Heyd,481 n.4); but the harassment continued, especially in Syria, where the situation became so bad that Venice sent another embassy, this time consisting of Lorenzo Tiepolo and Marin di Priuli, to Jaqmaq in 1449 (Heyd,482). From 1453 to 1467 there were six sultans with concomitant changes in attitude towards the West, and it was thus only with the accession of Qa'itbay in 872/1468, who was to reign for twenty-eight years, that some continuity of policy returned.

As Dr Newhall explained in her doctoral thesis on the patronage of Qa'itbay, the main pressures on the sultan were the Ottoman threat, religion and trade. Trade was particularly important, for the coffers were empty after the defeats just before the Sultan's

accession; so impoverished was the state that Qa'itbay was unable to give his troops the customary bounty on his enthronement. That Qa'itbay still retained the loyalty of the Mamluks is a mark of his high standing in their eyes, as well as his political agility, which is equally indicated by his smooth rise to power (Newhall, 25-27). The economic situation was further worsened by the successive outbreaks of plague, making it necessary to import goods from abroad. Dr Newhall asserted that "even such traditional and profoundly Middle Eastern crafts as enamelled glass and inlaid brass began to be supplied in great measure by the Italians" (39). Unfortunately she did not give the source of this information which goes beyond Dr Melikian-Chirvani's belief that "*li rami*", listed in a commercial treaty between Venice and Egypt in 1507, referred to copper objects, rather than to unworked metal (Melikian-Chirvani: 1974, 125).⁽¹⁹⁾ Despite, or perhaps because of, the economic pressures, however, Qa'itbay seems to have resisted any temptation to increase taxation on the spice trade. Any increase in income was due to an increase in the volume of trade, the price remaining a constant 40-50 ducats per cargo from 1450 to the end of the century.⁽²⁰⁾

The importance of the trade to both Venice and Qa'itbay does not imply, however, that there was no cause for complaint. The problems were not one-sided. Qa'itbay's letter to the Venetian Republic in 1473, in reply to Venetian remonstrances about, among other things, impure pepper, cited instances of debased currency, textiles embroidered with copper in place of gold, and short lengths of wool on account of which "the Muslim merchants have suffered".⁽²¹⁾ However, the Italians needed the spices imported through Egypt and Syria, as well as luxuries such as silks, while the Mamluks, for their part, needed above all metals from Western mines in face of their own lack of indigenous minerals, and wood. It was a cargo of copper and lead, albeit prohibited by Papal decree, that most frequently filled the Venetian galleys (Heyd: 1936, 441). But furs, fine wools, (Ashtor: 1978, 657-686), brocade textiles, and wine, which the ruling Mamluk hierarchy drank in secret,⁽²²⁾ were also imported.

Although the situation in Syria had been slightly better than in Egypt, perhaps because of the distance from the Sultan's court, life was hazardous there too. Christian goods were seized without payment and departure from port prevented. The air was unhealthy in Damascus, Aleppo and Tyre, the Westerners having to recuperate in Beirut, a port in regular use by the Venetian galleys. In Damascus the Christians were locked in at night, as in Alexandria. Certain Venetian families were known for their trade with the East, in particular the Quirini, Barbarighi, and Storladi who had chosen Damascus as the centre of their operations (Heyd, 463). Before his elevation, Doge Niccolo Marcello (1473-94) had been an important merchant in Damascus.⁽²³⁾ Towards the end of the XVth century the Morosini brothers founded a firm at Aleppo from which they traded throughout Syria and Cyprus. There were Venetian consuls in residence at Hama and Beirut too, as well as at Tripoli (Heyd, 464). In the south of Syria the picture was less happy. Acre was in ruins, Tyre too was used only infrequently. The caravan from Damascus to Cairo went down to the shore at Gaza, which was the border between Egypt and Syria. Jaffa was used only for two pilgrim boats a year. In 1415 Doge Tommaso Mocenigo obtained permission to instal a consul at Jerusalem to protect the pilgrims' rights. Most unusually, in 1484 a Venetian craftsman is recorded in Damascus, the residents usually being diplomatic or mercantile. A jeweller, "*Bartholomeo de bartholmeis zoielario*", was one of the witnesses for the *procura* of the Venetian Consul.⁽²⁴⁾

It had been hoped that the documented presence of consuls in specified cities in the Middle East might give a clue to the provenance of "Veneto-Saracenic" objects. If the recognisable Venetian arms on some pieces had been found to correspond to named individuals, it might have been possible to propose not only a date but a place of purchase at least, if not manufacture, for a particular object. However, the full list of consuls dates only from the end of the 17th century and precise details are therefore not known except where gleaned from individual archives. And these have proved of no help. Additionally, in most cases the "arms" on the

objects are either unrecognisable or too general to be informative. In one case, where the Priuli arms are recognisable on a footed cup in the Victoria and Albert Museum (inv.no.311-1954, Melikian-Chirvani:1974/2), it would have been a step in the right direction had its manufacture or purchase been identifiable with the embassy of Marin di Priuli to Sultan Jaqmaq in 1449; but this would be to stretch the available facts too far.

It was thought by economic historians that after the rounding of the Cape of Good Hope in 1498, direct trade with the Eastern Mediterranean diminished, but recent study has shown that during the following century at least it continued undiminished or even expanded (Ashtor:1978,5-53,573-612). Professor F.C. Lane, indeed, detected an expansion in the spice trade in the 16th century, despite the Portuguese discoveries, giving figures that showed a rise in the yearly average from 1,150,000 English lbs before 1498 to 1,310,454 English lbs in 1560-1564 (Lane:1968/2,47-58). A drop in the number of ships owned privately by Venetians between 1463 and 1488 was once thought to indicate the final decline in the Middle Eastern trade. But in 1502, presumably in response to this decline, the Signoria passed a remedial law allowing private ships to trade freely in all cargoes except those outlawed by the Church. In other words the Serenissima no longer demanded a state control over the spice market.⁽²⁵⁾ This in turn led to an increase in the number of privately-owned round ships, as opposed to state-owned galleys, so that by 1540-70 the evidence suggests that their numbers had doubled since the turn of the century. The discovery of the route round the Cape may even have helped private trade, for Spain and Portugal were thereafter less interested in the Mediterranean traffic. This, allied to revolutionary ship-building design, reduced risks to the private owner who seems to have succeeded where the Venetian State failed (Lane,22-46).

It was probably also important politically for Europe and the Mamluks to continue an amicable relationship in face of the growing threat from the Ottomans. Dr Newhall (1987,33-34) also pointed in

this regard to the strategic importance of Cyprus to the Mamluk state. The island had been under tacit Venetian control ever since James, the bastard son of King John II of Cyprus, married Caterina Cornaro in July 1468. After James' death in 1473 and having survived an abortive coup, Caterina ruled with two Venetian Councillors. In 1488 she was forced to abdicate, allowing Cyprus to be formally incorporated into the Venetian Empire (Newhall:1987,35-36).

Even the Ottoman conquest of Mamluk territory in 1517 did not put an end to the trade. In 1552 the Venetians were granted permission to trade within Cairo itself, where previously they had been restricted to Alexandria. Nor was it only in Egypt that they were allowed to continue trading. In Syria they maintained their operations, although they transferred their consulate from Damascus to Aleppo.⁽²⁶⁾ However, in the second half of the 16th century, Venetian trade suffered a decline. In 1571 Venice finally lost Cyprus to the Turks. The advent of English and Dutch traders presenting increased competition in the Mediterranean aggravated the Serenissima's financial problems, which were exacerbated by a serious outbreak of the plague in 1576. A shortage of wood too made the replacement of ships lost in the 1570-73 war difficult. From 1551 a series of private banks in Venice failed, beginning with the Priuli that year⁽²⁷⁾ until 1584 when that owned by the Pisani and Tiepolo families, collapsed.⁽²⁸⁾ In 1590 grain prices soared. Yet by the end of the century Nicolo Contarini was again claiming that trade in Aleppo could match that of any European city (Sella, 88-105). That, however, is beyond the remit of this study.

Section 3 : Diplomatic Exchanges

One aspect of the links between East and West at this period, which is of particular interest to this study, is the practice of exchanging diplomatic gifts. The objects described in the catalogue are not in themselves important enough to have fulfilled such a function. But what of their contents?

An embassy to Florence in November 1487 led by one Mazamet al-Malfet, "Malfota", presented special privileges accorded by the Mamluk Sultan to the Florentine Signoria. With it came presents for Lorenzo il Magnifico,⁽²⁹⁾ including a giraffe, a tame lion, and, of interest here, *"una grande ampolio di balsami... e legno aloe quanto può portare una persona ... vasi grandi di confectione, mirabolani e giengituo"*. Aloes wood was used as an incense and it would have been necessary to have a receptacle in which to burn it. The 1463 inventory of Piero di Cosimo de' Medici includes, among several items described as *"domaschino"*, *"uno vaso da fare proffumi domaschino"* and *"una palla da profumi domaschina"* (Spallanzani:1980/2,111). Unfortunately, the Medici treasury was dispersed after the sack of the Palazzo Medici in 1494, and it is not therefore possible to identify these or any of the other numerous articles, now described as *"alla domaschina"*, listed in the inventory drawn up after the death of Lorenzo in 1492 (Spallanzani:1982/2,100,112-3). If this had been possible, it might have cast some light on the difference between the two terms *domaschina* and *alla domaschina*, as well as providing invaluable dating brackets. The containers for the precious balsam, used in Europe to anoint kings and emperors, as well as those for the sweetmeats and the spices, are also of the highest interest here. It is significant that the gifts sent by Qa'itbay to the Signoria of Venice in 1473 included similar items. Presumably they were listed separately from the letter, for the catalogue of gifts is missing from the Arabic, but a contemporary Italian translation⁽³⁰⁾ gives a list of them, including crystallized sugar (*Do gentole di candi*), fifteen rats of aloes wood (*quindexe rotoli di legno aloe*), a vase of balsam (*una zucha de balsamo*) and two qintars of sugar (*do canteri de zuchar*). The hemispherical and cylindrical boxes with flat lids (cat.nos.59-154) could well have contained sugar or incense, as we shall see.

That it was usual to present gifts as part of a diplomatic exchange is confirmed by the events surrounding the embassy of Taghri Birdi to Venice at the beginning of the 16th century. As Dr Wansbrough pointed out (1963,503-530), of the twenty commercial

treaties between Mamluk Egypt and Venice, only one was negotiated in Venice herself. On 17th September 1506 Taghri Birdi, the ambassador of Sultan Qansuh al-Ghuri, arrived in the Serenissima. His origins are obscure (Wansbrough:1963,503-504), but he was of proven linguistic ability, for he is said to have spoken seven languages. He was faced with the task of persuading Venice to buy more pepper at an inflated price.⁽³¹⁾ He was to stay for ten months to negotiate with the Signoria, providing a spectacle for the locals when he attended social functions in full regalia.⁽³²⁾ But he brought no diplomatic presents with him, a fact so unusual as to be worth some comment.⁽³³⁾ On 20 September, he saw the Doge, to whom he bore two letters. About a fortnight later he visited the Doge again secretly, and thereafter the negotiations were handed over to three *Provedadori di Cotimo*. After a Venetian envoy had been sent in turn to Cairo, Taghri Birdi eventually signed a treaty with Venice on 30 May 1507, favourable to the Serenissima on every point, and for which the Mamluk envoy was to pay on his return to Cairo. Although no objects can be attributed to Taghri Birdi's sojourn in Venice, it may be significant that a small spherical incense burner in the Museo Correr (inv.no.XII 9, Appendix II no.9) has a composite blazon which includes a sword, for among the titles borne by Taghri Birdi was *al-saifi* (Wansbrough:1963, 506-7).

None of the objects treated in this thesis, however, have inscriptions giving the Sultan's title or blazon, which may lessen the likelihood that they were presented as diplomatic gifts. Even where there are seemingly European arms, it is unfortunately impossible to distinguish them with certainty, the vital clue of colour being absent. In some examples, different methods of fixing the now-lost inlay may indicate that a contrast was once achieved by using gold as well as silver and, rarely, copper, against the black compound of the ground. Many of the shields are blank, and were apparently never completed, as if the objects were made for a general market rather than a specific commission. One covered box in Milan (Museo Poldi-Pezzoli inv.no.770, cat.no.87), now bears European arms, perhaps to be identified with the Bembo family, in roundels on the

lid and walls. They have been added over an original floral decorative motif which is still just visible under the superimposed inlay. Many of the arms are unrecognisable and even those arms that can be identified are so general as to be unhelpful. Anyway, as almost every family in the Libro d'Oro had trading connections, and the family device was widely used, it is as impossible to tie an object to a specific consul, *bailo* or merchant, as it is to tie it to a specific embassy.

There is one further possibility in relation to diplomatic exchanges. Could a craftsman have been the proffered gift rather than a piece of metalwork? Could Mahmud al Kurdi, for example, have been included among the gifts sent by Uzun Hasan to the Venetian Senate? The question of slavery in mediaeval Italy is a vexed one. It was widespread (Origo:1955) and a source of considerable wealth, especially to a port like Venice (Lane:1973). As late as 1425 Pope Martin V issued a Bull threatening the Christians who traded in human merchandise with excommunication. However, although the presence of Muslims as household servants in even a modest family house is proven, nothing is known about the presence of skilled slaves in guilds. The evidence on the possibility that Mahmud al-Kurdi was a slave is therefore not available. However, as he continued to sign his work as "al-mu'allim" it seems unlikely he was not a free man, or, indeed working in the West.

Section 4 : Venetian links with Uzun Hasan

The Ottoman threat produced more than diplomatic exchanges between Venice and the Mamluk state. It lay behind another alliance between Venice and an Oriental power, this time with the Turcoman Aqqyunlu (White Sheep) ruler, Uzun Hasan, whose territories spanned eastern Anatolia and western Iran. Before looking at this unexpected alliance, it is necessary to give some of the background to Uzun Hasan's rule.⁽³⁴⁾

Uzun Hasan had come to power in 1457 after the downfall of his elder brother and had made his first objective the recovery of territory held under his grandfather, Qara 'Usman, but subsequently lost to his clan. In 1458 he made an astonishing marriage with the Greek Princess Theodora, niece of David Comnenos, ruler of the Kingdom of Trebizond (Trabzon), in return for which the Turkman ruler agreed to join an anti-Ottoman coalition (Woods,101). Theodora's sister, married to Nicolo Crespi, had four daughters who in turn married: a Marco Cornaro whose daughter, Caterina, was later the Queen of Cyprus, mentioned above; a Priuli; a Giovanni Loredano; and a Caterino Zeno, all of whom were members of the Venetian nobility (Berchet,2 n.1, Docs I,2 and 3). In 1460-61 a diplomatic mission from Uzun Hasan under the Franciscan Lodovico da Bologna toured the courts of Europe to try to raise a crusade against the Ottoman Turks, thus introducing the name of the Aqquyunlu ruler not only to the Hapsburgs, Hungarians, Poles, Burgundians and French but also to the major Italian city states of Rome, Florence and Venice. Despite the appeal to the Christian courts of Europe, however, Trebizond fell to the Ottomans in the summer of 1461, after a long siege had failed to bring the promised help from Uzun Hasan (Woods,103). The Turcoman ruler appears to have been more concerned with his personal image of *ghazi* against the Christians of the Caucasus (in particular the Georgians, against whom he had first conducted a Holy Raid in 1458) than in coming to the aid of his Greek ally (Woods,101).

Uzun Hasan had also come to terms with the rulers of the independent enclaves in Kurdistan who controlled the major migration and trade routes in eastern Anatolia. As with the Trapezuntine Greeks, he adopted a conciliatory attitude towards them, entering into marriage alliances, although these did not always ensure peace. But by 1459 a strong confederation with the most important tribe, the Malkishi Kurds of Cemisgezdek, had been achieved (Woods,105).⁽³⁵⁾ In 1462 Uzun Hasan with his eldest son, Sultan Khalil, had overthrown the remnants of the Ayyubid family at their capital, Hisn Kaifa. This success marked his emergence, in the eyes of the Mamluk chronicler Ibn Taghribirdi, as a real power in Diyar Bakr. At the

same time, it alerted the Mamluk sultan (al-Zahir Khushqadam, newly succeeded to the throne on the death of al-Ashraf Inal) to the potential Turcoman threat. The Sultan's fears were not allayed despite Uzun Hasan's careful recognition of Mamluk sovereignty in 1464, but in face of the looming Ottoman advance it was important to the Mamluk leader to maintain good relations with his newly powerful neighbour. The Sultan was right to mistrust the Aqquyunlu leader, who had territorial ambitions not only over Mamluk lands but also over Qaraqyunlu territory to the east. Matters came to a head in 1467 when Jahanshah, leader of the paramount Qaraqyunlu clan, led his own people and their confederates into Kurdistan and Eastern Diyar Bakr in violation of a 1461 treaty with Uzun Hasan (Woods, 109). The Qaraqyunlu were defeated (and Jahanshah killed) in November the same year, leaving their huge domains, which included Kurdistan, the Jazira, Azerbaijan, Fars and Kirman, in confusion.

Confusion also reigned in the Mamluk territories to the west and south of Uzun Hasan, for the death of Khushqadam the same year was followed by the reigns of four sultans in less than six months. As we have seen, the quick succession of rulers brought problems to the Venetians too. The Ottomans took advantage of the situation to ferment trouble, being allowed to do so unchallenged by Uzun Hasan, who saw his opportunity to move south-east, first taking Sinjar, Mosul and Irbil, and then moving on towards Western Azerbaijan. The Timurid ruler Abu Sa'id, in the meantime, had taken back the Jazira from the Qaraqyunlu, invading the province of Azerbaijan from the south, and reaching Miyane in October 1468, bringing him into direct conflict with Uzun Hasan's ambitions. He opened diplomatic negotiations with the Aqquyunlu leader, demanding that Uzun Hasan lead his tribe back to Diyar Bakr in exchange for the governorship of any future Timurid conquest in Anatolia, Syria or Egypt. Uzun Hasan refused. When Abu Sa'id withdrew to Qarabagh at the onset of winter, Uzun Hasan followed and bided his time. He encircled the Timurid camp, allowing them no supplies. Flushed out by his soldiers' demoralisation and desertion, Abu Sa'id was captured and finally executed on 5 February 1469. His death left Uzun Hasan's

way clear to expand into Azerbaijan, the provinces of the Jazira, Fars and Kirman (which fell to the Aqqyunlu in 1469), and even into Khurasan. Azerbaijan now became Uzun Hasan's new centre, the capital being transferred from Amid to Tabriz (Woods, 112). Although not conquered outright, outlying areas like Luristan, Khuzistan, and Sistan, as well as Sharvan, Mazandaran and Hurmuz all recognised Uzun Hasan's overlordship. Even Baghdad was occupied at the end of that year in the name of Uzun Hasan's son, Maqsud.

Thus, by 1469, the Aqqyunlu leader had secured his borders from Erzincan and Ruha in the West to Simnan and Kirman in the East, having driven the Qaraqyunlu from Iran and contained the Timurids within Khurasan and Transoxiana. Uzun Hasan's meteoric rise is reflected in the diplomatic correspondence with the new Mamluk Sultan, al-Ashraf Qa'itbay, who had meanwhile acceded to power in 1468. Uzun Hasan had pledged his loyalty to the Sultan in August 1468 and again in early 1469, when he was granted a robe of investiture by Qa'itbay as a sign of Mamluk recognition of his legitimacy. In June 1469, Uzun Hasan sent Abu Sa'id's head to Cairo with the news of the Aqqyunlu victory over the Timurids. In his letter Uzun Hasan claimed (by use of the *abjad* system - Woods, 115) that the victory had been foretold in Sura XXX: 3-4 of the Qur'an, a theme taken up by later supporters of his to underline the Turcoman leader's divine right to rule.⁽³⁸⁾ The religious legitimacy claimed by Uzun Hasan had one unexpected result. According to Dr Newhall, it was in direct response to Uzun Hasan's attempt to wrest the title "Servitor of the Two Holy Cities" from the Mamluk Sultan by sending *mahmals* to Mecca and Medina (in 873/1469, 874/1470, 875/1471 and 877/1473; Newhall, 30) that Qa'itbay in 1475 ordered parts of the Citadel of Aleppo to be restored. Round the windows of the audience hall of this bastion of Mamluk power in the north, the Sultan directed to be inscribed the titles "supreme sultan ... who does not cease to have the highest honour among princes of the earth by his service to the two noble sanctuaries, Sultan of Islam and the Muslims, the tamer of infidels and polytheists, the invigorator of justice in the [two] worlds, the source of generosity for those who

seek the protection of God..." (Newhall,67). Qa'itbay also used similar titles in Medina in 885/1480, when he adopted the new title *khaqan*, originally applied to Mongol rulers in Persia, the Jazira and Anatolia.(37)

It is now time to return to the question of the Venetian-Turcoman alliance. As early as 1463, Venice had made overtures to two leaders in Anatolia, Ibrahim Qaramani and Uzun Hasan, seeking an alliance against the Ottoman Fatih Mehmed, more commonly known in the west as Mehmed the Conqueror (Berchet,3 n.1,Doc.II,102-4 n.3, Doc.III,104). Ibrahim died in 1464 and, as explained, Uzun Hasan's first interest was in consolidating his own position. Nothing, therefore, came of this first approach, despite the arrival in Venice on 13 March 1464 of "Mamenatazab", the Aqquyunlu ambassador, who crossed with the Venetian envoy, Lazaro Quirini, already on his way to Persia.(38) The Doge received the Turcoman Ambassador's proposals with enthusiasm (Berchet,4). In 1465 a further letter arrived in Venice from Uzun Hasan, delivered by a Persian envoy called Kasam-Hasan (Berchet,4), to which the Senate sent a favourable reply on 27 February 1466. But in the meantime, Negroponte had been lost and the matter fell once more into abeyance. In 1470 Uzun Hasan sent yet another embassy to Venice which arrived in the city in February 1471, announcing his victories over the Qaraqyunlu and Timurids, and soliciting help from the Italians in overcoming the Ottomans. The personalities here were Lazaro Quirini, who had set out for the Aqquyunlu court in 1464, and one "Mirath".(39) The Senate replied on 7 March congratulating him on his victory and promising to send a "solemn ambassador" to his court. It was, it seems, difficult to fill the post (40) but Caterino Zeno finally accepted it.(41) He would seem to have had the perfect background, being a nephew of Uzun Hasan's Greek wife and having spent some time in Damascus with his father, Dracone Zeno. After a further briefing on 10 September 1471 (Berchet,7 n.1, Doc.VII), Zeno and "Mirath" set out to return to the Aqquyunlu court, taking with them a diplomatic present of cloth of gold ("*panni d'ord*"). (42)

Uzun Hasan sent a further embassy to Venice, Zeno requesting safe passage for him from the Captain General, Pietro Mocenigo, on 30 May 1472 (Berchet, 8 n.2, quoting Annali del Malipiero). The envoy arrived at the end of August, in turn bringing with him gifts for the Serenissima, among them, it was once thought (Berchet, 8), the turquoise glass bowl now in the Tesoro di San Marco, no.140, first listed in the 1571 inventory no.62.⁽⁴³⁾ In response to this latest embassy, the Doge wrote to Uzun Hasan on 25 September 1472 with promises of artillery and naval support (Berchet, 9, Secreta XXV). On 5 January 1473, the Senate appointed Giosafat Barbaro ambassador to the Aqqyunlu court (Berchet, 9 n.3) and he duly departed, together with the Turcoman envoy and the promised armaments, as well as presents for Uzun Hasan of a silver vase worth 3000 ducats, more cloth of gold and scarlet woollens. Further arms were sent with Antonio da Brabante following Senate instructions on 5 November and 21 December 1473 and 22 January 1474.⁽⁴⁴⁾

Meanwhile, with the assurances of Venetian backing, Uzun Hasan had moved the main Aqqyunlu army west in early May 1472. The first phase was an offensive drive in the summer of that year into Qaraman, occupied by the Ottomans, and a further offensive into Mamluk territory that autumn. In December 1472, Zeno sent news of the early victories back to Venice.⁽⁴⁵⁾ And in February 1473, Uzun Hasan sent yet another envoy to Venice. The Doge, it seems, received him with affection and promised the speedy arrival of Barbaro (who had already left) with the armaments. But in fact, Barbaro did not arrive before Uzun Hasan was forced into a defensive withdrawal before the counter-attacking Ottomans that same summer. An account of the final defeat of the Aqqyunlu forces in July in the plain of Erzincan was given to the Senate by Zeno, who had been present. His assessment of the number of Uzun Hasan's army at 300,000 (Berchet, 15, quoting a letter from Zeno dated 26 July 1473) was of a force far greater than that described by Contarini several years later on the basis of information from veterans of the campaign. It seems that after an initial reverse, Mehmed the Conqueror's army had pitched camp at Baskent where, probably against

Uzun Hasan's inclination, the two armies had met in battle. The precise details are confused but the end result was an indubitable Aqqyunlu rout. To a ruler who had boasted that he was chosen by God, such a defeat must have lessened Uzun Hasan's prestige in his own eyes no less than in his followers'. Uzun Hasan now had to fight to maintain his rule against members of his family, in particular against the counter-claims of his two sons, Ughurlu Muhammad and Sultan-Khalil. This in turn eventually brought about the total collapse of Aqqyunlu power; but that is beyond the interests of this study, whose main concern lies in the contacts between East and West. However, the relevance of Uzun Hasan's extraordinary career will become apparent in Section 6 of this chapter, which is a discussion of the work of Mahmud al-Kurdi.

Section 5 : The Art Historians' view

Now that the relationships between Venice and the Middle East in the 15th and 16th centuries have been surveyed, it is time to reassess the question of the belief of art historians in the presence of Muslim craftsmen in Venice.

If Lavoix was cautious in his 1862 article, fifteen years later he was stating categorically that one of the reasons for Muslim ornament in the work of European painters and sculptors was the presence of Arab masters in Italian towns.⁽⁴⁶⁾ Since his 1862 article, Lavoix had read an Italian translation of a publication by Heyd in 1866, entitled Le colonie commerciale degli Italiani in Oriente nel Medio Evo. He also knew G. Berchet's La Repubblica di Venezia e la Persia (Turin, 1865) yet still he repeated the unattributed statement by a Venetian of the palatial comforts of residence in the Middle East, adding that it was no exaggeration. Later in the same article, faced with the ewer engraved inside with bilingual signatures, now in the Louvre (inv.no.R.57, cat.no.263, pl.5) but then in the Rothschild Collection, Lavoix said he believed that Master Mahmud lived in Italy, "the country whose language was

familiar to him".⁽⁴⁷⁾ He supported his thesis by repeating his arguments from "Les Azziministes". By implication, Mahmud was "Saracenic", that is from Mamluk Egypt or Syria.

From then on, the presence of "Saracenic" masters living and working in Italy seems to have become an accepted fact. In September 1886, for example, Lane-Poole published an article entitled "A Venetian Azzimina of the Sixteenth century" (1886/1). In it he claimed "The Queen of the Adriatic (Venice) was not slow to import the artists whose skill had made the manufactures of Egypt, Syria and Mesopotamia famous throughout all lands". Later in the article he made the statement "From the Mamluk artists, either of Syrian or Egyptian school (sic), came the Mohammedans who made the finest salvers of Venice" (451). There followed a description of the different techniques used by Mosul, Mamluk and Venetian inlayers, which are discussed here in Chapter 2; Lane-Poole stressed the Mamluk connection with the "Venetian Saracens". To this school he attributed the salver of Mahmud al-Kurdi in the British Museum (inv.no.1878 12-30 705, cat.no.160, pls 7-9), with the comment "Where Mahmud came from, beyond the hint supplied by the word Kurd, we do not know; but the style of his work proves him to have been one of the Saracens employed at Venice, and probably the best of her foreign artists" (452). He concluded the article by illustrating another salver in the British Museum (number not supplied but identified as inv.no.1878 12-30 714, cat.no.194) "probably the work of one of his (Mahmud's) Sixteenth or Seventeenth Century pupils at Venice". The Western origin was attested by its shape, he said, and the "lack of rational development in the arabesques" marked the transition to an Italian copy (453). In the same year, Lane-Poole published The Art of the Saracens in Egypt (1886/2) in which he expounded the view that Venice, the "almost Oriental city" (169) was the centre of Saracenic metalwork in Italy. He distinguished between the "somewhat crude outlines of the true Saracenic bowls and candlesticks" and the "more graceful and obviously Western shapes" (169), without being more specific. Perhaps the vocabulary which would have allowed him to be more precise did not yet exist. The comments on the objects show

a clear-sighted, if somewhat biased, appreciation of technical and artistic skill. But no proof of Mahmud's Venetian employment was offered nor was stylistically comparable metalwork of an indubitable Muslim provenance cited.

In La Storia di Venezia nella Vita Privata, Pompeo Molmenti repeated the belief in Muslims working in the city, as did Sir Percy Sykes in his History of Persia (vol.II,142). In the Manuel d'Art Musulman, published in 1927, Gaston Migeon said "*La présence d'ouvriers musulmans à Venise est encore attestée par le caractère nettement persan de deux chandeliers qui se trouvaient dans la collection Sarre de Berlin*" (II,p.101). As Dr Melikian-Chirvani averred in "Venise, entre l'Orient et l'Occident," (1974/2,109 n.4) if Migeon was referring to the two candlesticks in Sarre:1906, the style is Mamluk and not Persian. But the question of a Persian rather than a Mamluk link was now recognised. Lavoix's supposition - that Muslim craftsmen were living and working in Venice - had become fact, accepted by historian, art historian, and Islamicist, to be repeated unquestioned by Pope (1930/1)⁽⁴⁸⁾, Kühnel (1963,180, 184)⁽⁴⁹⁾, Evans (1931,167-8), Christie (1931,121, figs.21,24), Foote (1943) and Harari⁽⁵⁰⁾ among others, including Bussagli who, in 1956, labelled a Timurid jug "*Vaso in ottone ageminato in oro ed argento. Esequito a Venezia da un artista siriano che lavorava alla maniera persiana*" (Bussagli:1956,pl.LXIX). The acceptance of Muslim craftsmen working on Italian soil was continued unquestioned by such eminent scholars as Professor L.A. Mayer (1959,17-18), B.W. Robinson (1967,169-170), Professor R. Ettinghausen (1966,469-70), Professor U. Scerrato (1967) and Dr E. Atil (1975,146-147, Atil, Chase, and Jett:1985,178). It was only in an article published in 1970 that Professor Hans Huth raised serious doubts as to the possibility of foreign craftsmen plying their trade on Serenissima soil. Having traced the origins of the belief, Professor Huth came to Wilfred Blunt's claim (1966,24-27) that the embassy to Uzun Hasan resulted in the Aqquyunlu ruler sending Persian metalworkers to settle permanently in Venice. In contradiction to this claim, Professor Huth underlined that the 1474 report of Barbaro and Contarini

(Barbaro and Contarini:1873) made no mention of this. Indeed, Professor Huth found it historically unfeasible. Given the confinement of foreign merchants in Venice to their *fondachi* on the same repressive terms as Venetian traders in Mamluk territories, and given the strict Venetian guild laws, it seemed impossible to him for Muslims to have lived and worked in the Serenissima. This view had already been put forward by Molinier (1889) who had never accepted Lavoix' idea of Muslims living and working in Venice. Moreover, Molinier had thought that it should be possible to distinguish between Venetian and Muslim work because even if a Venetian copied as closely as he could the metalwork of a Muslim craftsman, the result would still reveal Western characteristics. Professor Huth agreed with the 19th century historian, for precisely that phenomenon was evident in Venetian lacquered bookbindings, which were closely analagous to "Veneto-Saracenic" metalwork in that they too had been believed to have been made by Persians living on Venetian territory. The lacquerwork also showed the same characteristics of being closely modelled on Muslim prototypes, the prime example, thought Professor Huth, being a shield made sometime after 1587 in Venice for the Bishop of Salzburg (Huth:1970,68). Accordingly, Professor Huth suggested it should be possible, with careful examination, to distinguish between the work of Venetian and Muslim craftsmen in the metalwork objects too. He added that the diplomatic exchanges with Uzun Hasan might indeed be significant from the point of view of the gifts brought by the envoys, which would have provided models for the Venetian metalworkers. The corpus should centre on the signed works, which would need a close scrutiny to determine an Eastern or Western master's hand. It was logical to suppose that a Western master making a "copy" would seek to be as accurate as he could, as demonstrated by the lacquered bookbindings. Professor Huth did not make the attempt to distinguish the objects stylistically himself but left it to a future study, his article giving the impression that only a limited number of objects were known to him.

Professor Huth argued lucidly and convincingly but offered no concrete proof in the form of archival material. He said, however, that a search of the Archivi di Stato of Venice would probably produce such proof. But, despite repeated searches by several scholars, no document has yet emerged. None is known to eminent Italian archivists like Drs Marco Spallanzani and Giovanni Curatola, nor to British historians who specialise in Venetian studies, like Professor Brian Pullan, and Drs Peter Humfrey, Richard Mackenny or Deborah Howard.⁽⁵¹⁾ There is no evidence of any specific ban on non-Venetian craftsmen, and no evidence of action taken against anyone with a Muslim name for illegal trade. Unfortunately, records of residence or death do not begin until after the period of concern here.⁽⁵²⁾ The evidence on Muslim residents is thus negative. However, there is recently discovered proof that German Jews were working in Venice from 1581 onwards,⁽⁵³⁾ given legitimacy by their association with the *Fraterna della Misericordia*. It is possible, therefore, that Muslims were also working there but that the documentation is either lost or has not yet surfaced.

Even after Professor Huth's article, which unfortunately appeared in a relatively obscure publication, the idea of Muslim workshops in Venice has not been eradicated. In 1974, Dr A.S. Melikian-Chirvani published "*Venise, entre l'Orient et l'Occident*", in which he distinguished four styles of "Veneto-Saracenic" metalwork that he thought had been manufactured in Venice. He did not mention Professor Huth's article. In the article, Dr Melikian-Chirvani deliberately excluded the signed objects of my Group B, which he saw as related to Persian metalwork (and which he promised to publish later). He thus concentrated on unsigned pieces whose style connected them with Mamluk work. These he subdivided into four stylistic groups, although he did not state the criteria by which the four styles had been distinguished. His analysis of the pieces was linked to Mamluk objects with inscriptions giving the names of known individuals who lived during the period of Qa'itbay,⁽⁵⁴⁾ or to uninscribed pieces whose late Mamluk provenance had been demonstrated by Dr James Allan (1969, 1971).

Dr Melikian-Chirvani assumed for two reasons that there were Muslim workshops in Venice : (i) because of the Western shape of the "Veneto-Saracenic" objects and (ii) because pieces with Western shields were, he thought, made on commission. To discuss the second point first, many of the objects have blank shields, and were apparently never completed with individual arms (cat.nos.3,119,125 [pl.10],155,167,208,210-11,216,228,232). Others have roughly incised arms (cat.nos.111,199-200,202 [pl.13]) while yet other examples have shields that have obviously been reworked (cat.no.87,90). It seems to me, therefore, that it is at least as likely either that the pieces were commissioned in the Middle East and imported into Italy by the families concerned; or, perhaps even more likely, that the pieces were imported wholesale into Italy to be finished there with details such as the armorial insignia, which could be added to order.⁽⁵⁵⁾ The likelihood of Middle Eastern manufacture is increased by the statement of Vasari, already mentioned, to the effect that inlaid objects were imported from Damascus and all the countries of the Levant (Maclehose:1960,279). This last explanation was, indeed, offered by Dr Melikian-Chirvani to explain both the different patinas on some objects (123), for instance a salver with the arms of the Soranzo family (Victoria and Albert M.190-1951), as well as the presence of mercury gilding on the same salver (125). Another salver in the Victoria and Albert Museum (inv no.M.464-1922, cat.no.188,pl.20) has been regilded (presumably in the last century) so that all traces of inlay have been obliterated; and another in the British Museum (inv.no.1878 12-30 708, cat.no.167) has been stripped to a uniform yellow. It is indeed significant that the huge majority of objects that make up the corpus of "Veneto-Saracenic" metalwork are in Western collections, where they have either been located for a long time, like the two spherical incense burners and bowl and cover signed by Zain al-Din in the Bargello (inv.nos Bronzi 299,292,317, cat.nos 15,16,61), or bought from Italian sources within the last century (like the objects in the Gambier-Parry collection). Only one object is known to me that was bought in the Middle East : a small candlestick with the arms of the Rizzo or Gatta families, acquired by Friedrich Sarre in Beirut in

1897 (Sarre:1906,44 no.98,cat.no.206). Whereas the present writer thinks that both the current location and provenance of the "Veneto-Saracenic" objects and their close similarity to the decorative repertoire of Mamluk metalwork must mean that the "Veneto-Saracenic" objects were made in Mamluk workshops for export to Italy, Dr Melikian-Chirvani thought the opposite, namely that the objects were made in Venice and exported to the Middle East. He backed his argument by noting the inclusion of the words *li rami* in the treaty signed by Venice with Egypt in 1507 (Wansbrough:1963,521). He translated this not as "copper" (as Professor Wansbrough had done) but as "the coppers", i.e. copper objects (125). The difficulty is that there is no conclusive proof for either viewpoint.

The second point made by Dr Melikian-Chirvani about the shape of the "Veneto-Saracenic" objects is certainly puzzling. It is true that the salvers with arabesques termed "Veneto-Saracenic" are similar in style and material to those with Western decoration which are called "European". To answer this question it will be helpful to take the objects discussed by Dr Melikian-Chirvani one by one and to turn his argument on its head, by starting with the assumption that the objects were made in a Mamluk workshop either in Egypt or Syria,⁽⁵⁶⁾ and exported to the West, rather than made in Venice, some to be exported to the Middle East. It would not be the first instance of metalwork made in a Mamluk workshop for a Western patron.⁽⁵⁷⁾ If the objects were made with the intention of exporting them to the West, some accommodation to Western taste might be expected. The precedent of porcelain made in China for export to Europe or the Near East, which included elements in the design deliberately tailored to the intended market, is well known.

1. The "Priuli cup", Victoria and Albert Museum, (inv.no.311-1954) (Style 1). If it is right, as Dr Melikian-Chirvani suggested, to see the foot and handles as later additions, then the form of the "cup" is close to that of the small lidded bowls of the catalogue in this study. The decoration is entirely Mamluk in character, including the inscription, as Dr Melikian-Chirvani himself pointed

out (113-114). The arms of the Priuli, surrounded by an undulating stem, could have been completed later. Although Dr Melikian-Chirvani saw the shield and stem as a device "*étranger à l'esthétique mamluke*" (113) it is found (albeit with a lotus in place of a shield) on a brass drum inlaid with silver in New York (Madina Collection M11, 15th century, Atil:1981,110-111, no.40). It is, incidentally, worth recalling here that the sister of Theodora Comnenos, wife of Uzun Hasan, had a daughter who married one of the Priuli family, and that a Marin di Priuli was an envoy to Sultan Jaqmaq in 1449. These facts are probably significant only in that they point to a close connection between the illustrious Venetian banking family and the Middle East.

2. Salver, Victoria and Albert Museum (inv.no. M.190-1951)(Style 2). Dr Melikian-Chirvani said the form of the salver, which has an almost horizontal rim and a rounded base, is unknown in the Mamluk world. If we start from the assumption that the salver was made in a Mamluk workshop, either for a Western patron to Western taste, or that it was acquired by a Frank in the *sug*, it becomes apparent that the salver has in fact no other Venetian characteristic whatsoever, apart from the arms of the Soranzo family. These appear on the reverse of the salver and are thus not integral to the decoratif formula, making it likely they were added after the object had been completed. Most blazons and arms appear prominently as a central feature in the design. In one case at least the Western arms have been superimposed over a Mamluk blazon.⁽⁵⁸⁾ Dr Melikian-Chirvani also opined that the decoration of the rim, which has geometric strapwork laid over the arabesque ground (fig.30a) is not found in Oriental art (116). It is certainly rare but not unknown; for example, it is found as far east as the Mausoleum of Oljeitu in Sultaniya in the spandrels of the upper galleries (Seherr-Thoss:1968,40) and also in a Maghribi Qu'ran of 1008/1599 (San Lorenzo del Escorial Library, 1340, ff.227v-228r, Lings:1976, pl.105). The shape of the salver is not complicated; it would present no problem to a metalworker skilled enough to engrave the decoration. The shape could therefore have been copied from a salver in the possession of a consul or merchant

who was a resident of Damascus, Aleppo or Cairo, or even developed from a sketch or verbal instruction. The absence of silver inlay points to an appreciation of the technical skill of the craftsman, rather than a wish to invest in expensive materials, or possibly an object made for the open market rather than on commission. Although precious metal inlay was scarcer in the 15th century than previously, it was still in vogue, as we shall see in Chapter 2.

3. Salver, Victoria and Albert Museum (inv.no.M.82-1953)(Style 2). It is only the form of the salver that is European according to Dr Melikian-Chirvani, who showed convincingly its close stylistic connections to the ewer of Zain al-Din Jawhar al-Mu'ini in the Musée des Beaux Arts, Lyon (inv.no.D669). If it is right to see the salver discussed above (no. 2) as being manufactured in a Syrian or Egyptian Mamluk workshop, it follows that there is no reason to suggest that this one is European.

4. Ewer, Museo Poldi-Pezzoli, Milan (inv.no.1656)(Style 3). The handle is a later addition. The weight of the object suggested to Dr Melikian-Chirvani that it was cast. The method of casting could be either by a mould, when a join between two sections would be visible (although perhaps disguised by the incised decoration), or by the lost wax method.⁽⁵⁹⁾ Although the form is unusual, either method would allow a Mamluk workshop to copy exactly a Western shape, reproducing the form in accordance with European taste. As the shape of the ewer is the only apparent barrier to accepting it as Mamluk, it thus follows that, cast as it is, it can be designated as a Mamluk copy of a Western original. Its decoration is, as Dr Melikian-Chirvani pointed out, close to a Mamluk basin in the same museum (inv.no.1651, not given in the article), published in Melikian-Chirvani:1969/1,99-104, figs.1-5b, which is similarly engraved. There are apparently no traces of silver inlay on the ewer, the surface having been subject to "*un nettoyage impitoyable*" (118).

5. Bowl, Victoria and Albert Museum (inv.no.M.18-1946)(Style 3). Although the bowl is typically "Veneto-Saracenic" in shape, its decoration is Mamluk. The argument rehearsed above, *à propos* no.4, about a cast object is relevant here too. It is also true that once the "Veneto-Saracenic" objects of my Group A have been accepted as made in a Mamluk workshop, their shape, which has been previously categorised as "European", can be re-designated as Mamluk, even if intended for the Western market.

6. Cylindrical box and cover, Musée des Arts Décoratifs, Paris (inv.no.20331, cat.no.151, figs 31 and 18b)(Style 3). The argument is as above.

7. Basin, Victoria and Albert Museum (inv.no.1686-1888, cat.no.155) (Style 4). Dr Melikian-Chirvani stated that the form is typical of basins from Iran and Syria of the 14th century, but unknown in the 15th. One explanation may be the deliberately archaicising style of Qa'itbay's era, which seems to have looked back to a previous "golden age" to instil confidence in its own (Newhall:1987, Ch.6, 177 ff). In decoration the style is Mamluk, as Dr Melikian-Chirvani stated. Only the presence of blank shields links the bowl to Venice. The motif of trellised *hastae* is discussed in Chapter 3, Part II Section 1B.

8. Bucket, Victoria and Albert Museum (inv.no.M.3-1946, cat.no.251) (Style 4). The object is once again cast and the argument of nos.4-6 is relevant. Dr Melikian-Chirvanili stressed (122) that no Mamluk buckets have been published but the similarity of this example to Western form is pronounced, as, for example, the bucket depicted hanging from a hook above the Princess' bed in the Dream of St. Ursula of c.1495 by Carpaccio, in the Accademia, Venice.⁽⁶⁰⁾

In each case, Dr Melikian-Chirvani stressed the strong Mamluk character of the objects. My argument agrees on this point but reverses his. I believe that there is no support for the assumption there was a Muslim workshop situated in Venice. It then becomes

logical to assume that the pieces were made on Mamluk territory, although I believe it is not yet possible to determine whether this was in Syria or Egypt (*pace* Dr Allan). My assumption provides an answer to Dr Melikian-Chirvani's problems over the presence of Mamluk verses on the Priuli cup and the technical virtuosity of the craftsmen. Documentary evidence may one day be found to support the supposition that Egyptian or Syrian craftsmen were plying their trade on Venetian soil; but until then it seems safer to suggest, in view of the categorical statement by Vasari that the objects came from the Levant,⁽⁶¹⁾ and of the documented presence of Italian merchants on Mamluk soil, that the objects were made there and imported into Europe. The thesis that Eastern craftsmen copied Western forms is supported by a composite candlestick in the Victoria and Albert Museum (inv.no.4301-1857, Melikian-Chirvani:1982,321-1,no.146). It is cast in gun-metal and its shape is Venetian but, as Dr Melikian-Chirvani explained, its Safavid origins are betrayed by details such as a stepped edge below the neck, and rounded fillets framing the outer ornamental border on the foot (321), as well as the overall character of its decoration. In this connection, Dr Melikian-Chirvani quoted Tommaso Garzoni who, in 1581, wrote of the sale of Venetian tin and bronze to "various parts of the Levant" (Melikian-Chirvani:1982,322 n.1). It is equally probable that Venetian bronzes should have reached Safavid Isfahan in the trunk of one of the many European visitors to the court of Shah Abbas (Savory:1980, 107-108). However, it is also true that Western masters copied Muslim craftsmen, as is proved by the presence in the Victoria and Albert Museum of a candlestick with an almost identical shape (inv.no.4857-1858). It bears a German maker's mark, the initials SG, probably those of Sebald Gscheid, recorded in Nuremberg in 1567 and 1597 (Steufel:1918). It is covered by raised arabesque ornament and falls into the same category therefore as the Nicola Rugina salver of 1550 in Vienna (inv.no.G0.81,cat.no.197), that is, an object made by a European metalworker deliberately working in the Oriental manner.⁽⁶²⁾

The question of the provenance of the "Veneto-Saracenic" objects has been most recently reviewed by Dr James W. Allan in Metalwork of the Islamic World, The Aron Collection, Chapter V, "Cairo, Damascus or Venice? Possible Provenances of Mamluk Metalwork". His view is inherent in the title of the chapter, namely that the bulk of the objects should be re-assigned to Mamluk workshops.

Here Dr Allan revised his earlier opinion on the long-term breakdown of the metalworking industry in Damascus in the 15th century (Allan:1984). He believed that even though Timur had stripped the city of its wealth and its craftsmen, Damascus was soon repopulated and back to work (1986,59-60). This view coincides with that of the recovery of Persia voiced by Professor Barthold who, basing his opinion on the report of Clavijo's visit during the last year of Timur's reign, said "...many Iranian provinces, if not all of them, were able to recover rapidly from Timur's devastations and massacres" (Barthold:1962,8). Dr Allan reassigned many of the objects traditionally labelled "Veneto-Saracenic" to the city of Damascus, or, rather to it and other centres in Syria or the Jazira. In the belief that it is not helpful to be so specific when no precise evidence exists in the form of an inscription, a document, or a named patron whose history is known, the present author prefers to use the more general term "Mamluk, Egyptian or Syrian" until further evidence comes to light, especially in view of Dr. Allan's own argument that Alexandria was the destination of copper exports from Venice. He suggested (58) that manufactured objects were among these exports, including copper "plates" ("*tole*")⁽⁶³⁾, "copper wire" and "*zerti lavori de rame*". It is just as likely that *tole*, rather than plates, refer to sheets of metal ready to be manufactured into an object, the raw material, as it were, of metalwork production, in the same way as copper wire would be used in the manufacturing process. The *zerti lavori de rame* are more intriguing. In view of the Venetian rapacity and blindness to Papal bans on trade, it may be that the "certain works" refer to armaments, which certainly could not be explicitly described in a document. Venice was working to bolster the Mamluk state against the Ottoman threat (Newhall:1987,33-

40) which was a more immediate problem than any historic religious view that the Holy Land should belong to the Christian West. Venice never gave more than half-hearted support to the Crusader claims anyway.⁽⁶⁴⁾ Moreover, it makes little economic sense to subject a fashioned object to two expensive sea journeys when casting allowed a comparatively easy method of copying a foreign design.⁽⁶⁵⁾ There is no certain textual support for the hypothesis that manufactured goods were exported from Venice, or that they were decorated by Mamluk craftsmen and then reimported into Europe, as we saw above. It seems more prudent, until more evidence is available, to allow the commonsense argument in economic terms to prevail, namely that objects for the Western market were made to European taste by Mamluk craftsmen in Egypt or Syria.

For there can be no doubt that the Group A objects are intrinsically Mamluk. In this the writer would agree with Drs Allan and Melikian-Chirvani. But Group B is both more complex and more interesting. It features the work of the master Mahmud al-Kurdi, who is so central to the problem that he deserves a sub-section to himself.

Section 6 : The Work of Mahmud al-Kurdi.

I have dealt elsewhere with the appeal to the Western world of the metalwork centred around Mahmud's *oeuvre* (Auld:Forthcoming). In the present study, a stylistic analysis of the objects available to me (which goes well beyond the earlier article) reveals a surprising, and, I believe, significant mixture of influences.

Professor Mayer (Mayer:1959,56-58) listed nineteen objects assigned to Master Mahmud. The entries below follow Mayer's catalogue, the numbers in brackets after the entries being a reference to the catalogue of the present study. The asterisk before nos. 3, 4, 5, 7, 11, 13, 14, 16, 17 and 19 denotes one of three possibilities : that it has proved impossible to see the

object, or to locate it, or that on stylistic grounds it must be removed from the corpus. Thus of the nineteen objects listed by Professor Mayer, only nine are available for discussion. However, another signed bowl and cover in the Courtauld Institute (inv.no.76, Gambier-Parry 79, cat.no.65, pls 1-4) can be added, bringing the total to ten signed objects, an unusually high number of extant pieces from one hand. It is of course possible that further study will reveal that some of the items removed from Mayer's list for the reasons given should be reinstated.

1. Salver, formerly Mannheim Collection, later Stieglitz Collection, now Hermitage State Museum, Leningrad inv.no.VC.235 (cat.no.161, pl.21, figs 77,19a and b).

2. Salver, formerly E. Piot Collection, later Baroness Solomon de Rothschild, now Musée du Louvre, Paris inv.no.OA.7526 (cat.no.162, pl.22, fig.19c).

*3. Salver, formerly Brummer collection, now Walters Art Gallery, Baltimore, inv.no.54.527 (cat.no.163, pls 15-18, fig.78) I do not believe this to be the work of Mahmud al-Kurdi, as I explain below.

*4. Salver, said by Mayer to be in the Treasury of the Cathedral of Cividale del Friuli. (I have been unable to locate this. It is listed in M. Bussagli, Mostra d'Arte Iranica at the Istituto Italiano per il Medio ed Estremo Oriente, Palazzo Brancaccio, Rome June-August 1956,192-193, no.283 : "A group of three objects in a metallic alloy resembling bronze inlaid with silver. A large dish, a small hemispherical box with a flat lid (no.12 below) and a receptacle with a bow-shaped handle. Made in Venice by a Persian craftsman who signs himself (on the inside of the rim of the large dish) mu'allim Mahmud al-Kurdi..." While the bowl and cover are signed by Mahmud, although not listed as such by Bussagli, and are known to the Museo Archeologico of Cividale, the dish is not known to them).

- *5. Salver, Victoria and Albert Museum inv.no.2061-1855 (cat.no. 185, pl.19). There is no signature on this object. It has an unidentified European coat of arms in the centre, which is alien to Mahmud's *oeuvre*, and the design is also unlike his signed work. I do not think it is by master Mahmud.
6. Salver, British Museum inv.no.1878 12-30 705 (Cat.no.160, pls 7-9, fig.d).
- *7. Bowl, formerly in the Koechlin collection, now in the Musée du Louvre. (There is no bowl signed by Mahmud in the Louvre, although a bowl and cover whose work is similar to his has an inventory number OA 7525, cat.no.70, pl.23, fig.68).
8. Bowl and lid, formerly in the Bernal collection, now in the Victoria and Albert Museum inv.no.2290-1855 (cat.no.68, pls 24-28).
9. Bowl, now in the British Museum inv.no.1895 5-21 3 (cat.no.66, pl.29).
10. Bowl, formerly in the A. Nesbitt collection, now in the British Museum inv.no.1895 5-21 2 (cat.no.67, pl.30, figs 74-75).
- *11. Bowl, formerly in the Kevorkian Collection, now said by Mayer to be in the City Art Museum, St. Louis inv.no.1336 M. (cat.no.82. The Museum, renamed the St. Louis Arts Museum, has no record of the bowl).
12. Bowl, Museo Archeologico Nazionale, Cividale inv.no.4441 (cat. no.69).
- *13. Bowl, Museo Stibbert, Florence inv.no.6122 (cat.no.81. I was unable to see the bowl when I visited Florence because the museum was closed and I have been unable to establish communication with the museum since).

*14. Cylindrical box, Museo Stibbert, Florence inv.no.6121 (cat.no. 154. As above).

15. Handwarmer (sic) in the Museo Civico, Bologna, now called the Museo Civico Medioevale, Bologna inv.no.2110 (cat.no.2, pl.31, fig.71a).

*16. Ewer, formerly in the Baroness Solomon de Rothschild collection, now in the Musée du Louvre, Paris inv.no.R.57 (cat.no.263, pl.5. I do not believe this is by the same hand as other signed objects by Mahmud al-Kurdi).

*17. Bucket with handle, present owner unknown. (Pijoan:1949,198 fig. 264, cat.no.245. Although Pijoan stated that there was a signature on the bucket, none is visible in the photograph. Mayer (58) noted that the St. Louis Museum, claimed by Pijoan to be the owners of the bucket, said that it did know its whereabouts. The museum has confirmed to me that it has no knowledge of either the bucket or the bowl listed under no. 11 above).

18. Bucket, now in the Museo Fundacion Lazaro Galdiano Madrid inv. no.2357 (cat.no.233 pl.32. This has been incongruously mounted on a candlestick base to form a footed cup).

*19. Bowl signed by Mahmud al-Kurdi together with Mansur ibn Yunus, formerly in the Duc de Luynes collection, present owner unknown. (Lanci, Rappresentanza, 1846 II, 117-121, pl.XXXIX, 5).

Wiet:1932 (Appendix 258-260, nos.475-483) listed nine of these entries and Mayer in each case gave the relevant cross-reference. It is possible, therefore, that Wiet may be the source of Mayer's information. Wiet, for example, also listed the box (259,no.480), previously in the Koechlin collection (Mayer 7) claimed by both to be in the Musée du Louvre, who have no record of it.

(A) The Salvors

(1) Signatures

The three salvors (nos.1,2,6, pls 21,2,7) which I believe to bear the authentic signature of the master Mahmud al-Kurdi have a similar form. They are flat with a raised, perpendicular rim. The signatures are :

(1) (State Hermitage) *naqqasha* (or *naqqash^{un}*, it is unclear if the form is that of a verb or an '*idafa*')⁽⁶⁶⁾ *al-mu'allim Mahmud al-Kurdi* across the centre between straight parallel fillet frames, around which two rhombs intersect to form an eight-pointed star, surrounded in turn by a circular border. A fleur de lys emerges from the frame of the signature to negate the impression of a single viewing point (pl.21, fig.77).

(2) (Louvre) '*amala* (or '*amal^{un}*) *al-mu'allim Mahmud al Kurdi yarju al-maghfirat* ... across the central field between straight parallel fillet frames, around which is a concave-sided eight-pointed star (pl.22).

(3) (British Museum) An eight-pointed star similar to the Paris salver fills the central field. The signature, however, is split into four and appears in roundels at the four cardinal points. Each roundel has a tripartite division, the inscription running across the central field in a style reminiscent of Mamluk blazons.⁽⁶⁷⁾ The signature is split between the four roundels : (a) *naqqasha al-mu'allim* (b) *Mahmud* (c) *al-Kurdi yarju* (d) *al-maghfirat bi-rabbihi* (?). The more common ending for this phrase, "who seeks forgiveness from his lord", reads *min mawlahi*, (see Wiet:1932,145). The fields above and below the inscription in each roundel are filled with small engraved arabesques (pl.7).

The form of the signature on the salver in the Walters Art Gallery, which is divided between two areas on the rim (pls 17 and 18), is not the same as that on the salvers already discussed. Pl.17 shows the first part of it, which I cannot decipher. The second part, seen in pl.18, is closer to a legible form. It approximates *al-Kurdi yarju al-maghfir*, the only peculiarity lying in the split terminals to the *ra* of *Kurdi* and *waw* of *yarju*, which seem to follow a Gothic mode, although the shape of the *kaf* is also unusual. However, the design and execution of the overall decoration of the salver are far removed from Mahmud's normal style. Details like the panels of knots on the rim, the illogical arrangement of the successive bands of motifs and the shape of the object are all alien to Mahmud. Taken in conjunction with the Gothic appearance of the letters already mentioned and the illegibility of one part of the signature, the evidence points towards making it impossible, in my view, to include the salver as part of the master's *oeuvre*.

A salver in the British Museum (inv.no.1878 12-30 711, cat.no. 164) has a similar form to the Walters Art Gallery example. It bears two areas of inscription on the edge of the broad, flat rim (fig.79). One appears to read *'amal al-mu'allim Mahmud ibn al-Kurdi* although the form of Mahmud is garbled, the initial *mim* having a tail and meeting the *ha* with a transverse stroke. The *ha* is also strange, have a diacritical point under it, transforming it into a *jim*. There is no flourish over the *'ain* of *mu'allim*, as there is on the salvers in Leningrad and Paris (pls 21 and 22); the *nun* of *ibn* rises in a final sinuous tail and the *dal* of *Kurdi* is joined to the *ra*. However, the ground is cross-hatched and while there are unusual features about this area of the inscription which make it markedly different in detail to the signatures recognised as by Mahmud al-Kurdi, the epigraphy could be accepted as executed by an Islamic hand. The second part of the inscription, which appears on a point of the rim opposite, is more problematical. The beginning might be read as "*'umar ibn al-mu'allim ...*" although final part of the *mim* appears to develop into a *ra* or *nun*. This is followed by *ha ra mim*

waw ha ha (?). There are similarities here to the final part of the dual language signature by Mahmud al-Kurdi on the Courtauld hemispherical bowl and cover (inv.no.76, cat.no.65, pls 3 and 4), particularly in the final double *ha*, so it is possible that this is a garbled form of "*yarju al-maghfirat*". But, if so, it is a copy by someone who did not understand the original. There are other peculiarities : the final *mim* of *mu'allim*, which as we saw is joined to a possible *ra* or *nun*. This letter has a tail which bifurcates in a way remarkably similar to the Walters Art Gallery inscription, which I have suggested is a Gothic form. As the overall layout of this salver is confused and includes awkwardly irregular shapes, no continuation between the succeeding bands of decoration and guilloche knots used out of context, it seems probable that this salver too is a Western copy.

The appearance of Mahmud's "signature" on these salvers, as well as on the handles of a bucket in Milan (inv.no.1659, cat.no.242) - which seem equally to emulate the master's hand - and the added inscription in Arabic and Latin on the ewer in Paris (inv.no.R.57, cat.no.263), raises the question of Mahmud's reputation. This must have been sufficiently elevated to warrant such "forgeries", if that is what they are. I have discussed this elsewhere (Auld: Forthcoming) but draw attention to the question here as it may point to a particular status given to the Kurd's work by his contemporaries in Italy.

Comments :

(a) The different terms '*amal*' and *naqqash* seem to have no significance.

(b) The form of the signature is the same in each case, being written in silver wire. On the Paris and Leningrad salvers there is a small trefoil over the '*ain*' of *mu'allim*.



(c) On the London salver, the word Mahmud is given a disproportionate emphasis in a separate roundel, which cramps the final, longer, phrase.

(d) The background to each inscription is cross-hatched.

(2) The layout

It is now time to discuss the decorative motifs of Mahmud al-Kurdi's work. Throughout my comments on the decoration of "Veneto-Saracenic" metalwork I have been deeply aware of the absence of a generally agreed grammar of Islamic vegetal ornament to complement the existing analyses of geometric or angular ornament. My treatment of the issues in the thesis is a first, tentative step towards laying the groundwork for such a grammar. The attempt to set such analyses on a more rational footing than merely spotting resemblances offers the promise of more refined controls for provenance and dating than such ornament was formerly thought to possess.

The central motif in each tray is a concave eight-pointed star. On the Leningrad salver (pl.21) this is formed by two intersecting rhombs, in the London and Paris pieces (pls 7 and 21) no construction lines, as it were, are visible. In each case the ground is filled with engraved arabesques. On the Paris salver, the areas above and below the central band with the signature have scrolling stems bearing small ivy leaves. On the Leningrad piece, similar scrolling stems fill the central octagon, four of the star's points and the spandrels. The other intermediate four points have heavier wire-inlaid stem motifs. On the London one, the upper and lower fields of the roundels have stems with ivy leaves.

On each salver there is not only a similarity in the treatment of the centre but also in the division into four sections by means of cartouches. On the Paris and London pieces these are lime-shaped, while the Leningrad salver's are shield-shaped.

The Paris salver has the simplest layout in that the four lime-shaped cartouches stand alone, each filled with an engraved arabesque of spiralling split palmette stems intersecting with a tiny knot at the centre. Small trefoils point towards the central knot. Around the cartouches is a heavy ground of "linear" silver-inlaid scrolling arabesques of split palmettes, springing in each case from the tip of the four star points between the cartouches (fig.27). The ground is cross-hatched. At the border the arabesques form a small fleur de lys which is filled with engraved stems. A plain fillet divides the main decoration from a border of darts and a scalloped stem bearing trefoils (fig.19c).

The Leningrad salver has a similar dart border (fig.19b) round the central star, which is interrupted at the four points that correspond to the beginning of the shield-shaped cartouches with four small knots (fig.77). In the centre of each shield is a silver-inlaid quatrefoil with an intersecting central rhomb, the surrounding area being filled with engraved arabesques. Between the shields is a secondary cruciform device, also with engraved arabesques. The ground between is filled with heavy "linear" inlaid scrolling stems of split palmettes (fig.24). Here too the ground is cross-hatched. The border, which is cut by the tips of the four shields, each with a knot, has a similar dart and scalloped element (fig.19a). But here the darts overlay the scalloped stems, while the elements of the Paris salver's border were interlocking.

The London salver is the most complex. Each point of the central star develops into a directional ray, four with lime cartouches, the four intermediaries forming a closed crescent which ends in an ogival tip, out of which develops the epigraphic roundel. Similar crescents emerge from the border, their ogival tips meeting the apexes of the roundels. The crescents are filled with an inlaid arabesque, as is the ground between the cartouches (fig.26). The ground is cross-hatched. The border is again formed of darts and a scalloped stem bearing trefoils, but here a separate element forms a shield between each dart (fig.19d). On the outside walls of the

salver are a series of alternating inlaid motifs, a lotus, a lotus with crossed petals (pls 8 and 9) and a split-palmette stem carrying a trefoil.

Comments.

(a) The close family relationship between the design of the salvers might point to a series for a single owner who would appreciate the variations on the theme of cartouche, border and arabesque infill. Although at first sight they appear identical, close scrutiny reveals the subtleties of the variations in the design. In other words, it is a contemplative art.

(b) The prominence given to the master's signature is astonishing. On the Leningrad and Paris salvers it appears across the central field; on the London one, in the central field of the tripartite blazons. If these were for an Islamic market, then it is, in the opinion of this writer, inconceivable that they should be for a patron in the Mamluk world. That a craftsman should place his name where it is customary to display the name of the Sultan or the blazon of the patron is tantamount, I believe, to an insult.

(c) Dr Allan (1986,55-57) stated that he believed Mahmud al-Kurdi to have been working in Cairo because the borders and the layout of the salvers (which he called dishes) in the Louvre and British Museum show links with Cairene manuscript illumination of the 14th and 15th centuries. To take these points individually :-

(i) The borders. If the border elements are drawn out (fig.19 a-d), it can be seen that they are based not only on the same shapes but on the same principle as the Timurid metalwork borders of Appendix figs T7a-e. And these in turn are seen in Persian manuscript illuminations and in architectural decoration in Anatolia.⁽⁶⁸⁾ Here too are the white lines and interlocking elements that led Dr Allan to think Mahmud al-Kurdi was working in Cairo. It is not necessary to go to Egypt to find the motifs, nor do the borders of

the Qur'ans of Barsbay of 1425 (69) show the same aesthetic approach. In Mahmud's borders, the elements, although interlocking, are self-sufficient. In the Qur'an borders the elements are either from a single source (Lings:1976,pl.79) or are overlaid on a subordinate scrolling stem (Lings:1976,pl.78). Either the Cairene illuminator used a different source for his pattern or he misunderstood the Persian approach. This is not the place to enter into a discussion of the origins of Cairene illumination or, indeed, the use of pattern books. However, it is worth stressing that the style of Timurid manuscript illumination enjoyed a vogue in Cairo in the mid-15th century, reinforcing the strong Iranian influence on Mamluk illumination throughout the Il-Khanid period,(70) an influence which also expressed itself in the sudden Cairene fashion for tiled decoration of the Iranian type. The evidence presented by Dr. Allan does not, I think, prove that Mahmud was necessarily working in Cairo.

(ii) The division of the field of the salvers into four by means of superimposed wire cartouches. The folios of the Barsbay Qur'an illustrated by Dr. Lings (1976, pl.79) have a central panel. In the middle is a gold star, from the points of which emerge white lines to form a saltire. However, here too there is a basic difference of approach in two ways to that of Mahmud. First, the salvers show no promise of the motif continuing beyond the confines of the outer border. In each case, the cartouches touch the border and are brought to an end by it, even if on the Leningrad plate the tips encroach into the border to terminate in a knot. But the Qur'an panel is formed out of one element of a continual overall pattern. The four corners bear the beginnings of a repeat pattern in the classic Islamic mode (Hankin:1925). In the same way, the central stars of the Qur'ans illustrated by Dr Lings in plates 54, 55, 59, 64, 67, 74, 76, and 78 (71) are magnified details of an all-over repeat pattern like that of his plates 69 and 71.(72) Secondly, the white saltire element of the Qur'an panel lies over a continuous gold scrolling arabesque. The gold design is arranged to co-ordinate with the white cartouches but is otherwise unaffected by it. The two designs have in effect a three-dimensional relationship.

In Mahmud's salvers, however, each element is treated as being on the same plane. The cartouches are filled with arabesques that are contained within the wire borders of each motif; they do not continue beyond and behind as in the Qur'anic panel and thus are envisaged in a two-dimensional way. Such a fundamental difference in approach seems equally to deny a Cairene provenance for Mahmud.

(B) The Incense burner.

(1) Signatures.

The incense burner in Bologna is signed on both hemispheres (pl.31). One half has (1) *'amala* (or *'amal^{un}*) *Mahmud* (2) *al-Kurdi*; the other a similar but scrambled arrangement of the letters (1) *'amal* (or *'amal^{un}*) *Mahmud* (2) *al-ra dal kaf ya*. This strange disorder might indicate the work of either someone who was illiterate or a subordinate.

(2) The layout.

As on the salvers, the design of the central medallion is in the form of a cross (fig.71a). The divisions are drawn in silver wire and are in effect a counter-change motif, the four outer trefoils forming a negative series of four trefoils that converge on a central point, two of them carrying the signature. The border is a continuation of the same idea, being also divided into four parts by trefoils. Thus one theme pervades the whole sphere in a logical progression. Each motif delineated by the silver wire is filled with tiny engraved arabesques that are contained within the inlaid walls. In this way, although the incense burner is less spectacular than the salvers, the same principles of design pertain.

(C) The lidded bowls.

Descriptions of individual bowls are to be found under the catalogue entries, nos.65-69, pls 1-4,29,30,24-28. The comments here are to cross-reference the examples, pointing out the way in which the design has been planned.

First, the lids, which are flat and fit tightly into the bowls, the exception being British Museum 1895 5-21 2 which is slightly domed. In each case the design features a central regular geometric figure. In British Museum 1895 5-21 3 (cat.no.66,pl.26) this is a circle; in the others a concave-sided star, with twelve sides (Cividale, and Victoria and Albert 2290-1855,cat.nos.68,69, pl.24), or six sides (Courtauld, cat.no.65,pl.2). British Museum 1895 2-21 2 has a "Solomon's seal" of two intersecting equilateral triangles forming a star with six points (cat.no.67, pl.30, fig.74). The points of the polygons touch an imaginary circle. The design progresses outwards from the centre towards the border, using alternating regular shapes, again using an imaginary circle as a means of subdividing the space. These shapes are : (1) rhomboid (British Museum 1895 5-21 2 and 3, cat.nos. 67, 66; Courtauld,cat.no.65 and Victoria and Albert, cat.no.69); (2) shield (Cividale, cat.no.68 and British Museum 1895 2-21 2,cat.no.67 although here disguised by additions to the concave sides); (3) cruciform (British Museum 1895 2-21 3, cat.no.66 and Victoria and Albert, cat.no.68); (4) lime (Courtauld,cat.no.65). Although arranged in concentric bands, the lines of the circles are broken by the cartouches. The impression given is different from the rigid division of the Mamluk examples where each band is treated as a separate entity (pls 33,34,36, figs.7,8). In Mahmud's work the divisions blur so that a centrifugal, spoke-like movement is maintained. In only one example, British Museum 1895 5-21 3 (cat.no.66), is the edge of the lid marked by a plain wire fillet; in the others a narrow band of engraved stems acts as a hub, to continue the wheel metaphor. As on the salvers, each delineated motif is filled with its own engraved arabesque, often with a central knot or interlace.

While three lids are signed, only two examples display the master's name prominently : (a) in Cividale (cat.no.69), where the signature is divided between two framed cartouches (i) *'amala* (or *'amal^{un}*) *al-mu'allim Mahmu-* (sic) (ii) *-d al-Kurdi yarju*; and (b) Victoria and Albert 2290-1855 (cat.no.68, pl.24), where it appears across the central field of the twelve-pointed star, reading *naqqasha* (or *naqqash^{un}*) *al-mu'allim Mahmud*. On the third example, British Museum 1895 5-21 2 (cat.no.67, pl.30), the signature is split between the points of the star and is so tiny that it is virtually hidden from the naked eye : (i) *'amal a-* (sic) (ii) *-l-mu'allim* (iii) *Mahmu-* (sic) (iv) *-d al-Kurd* (sic) (v) *-i yar* (sic) (vi) *-ju*. The division here is particularly erratic, almost as if the form of the individual letters rather than their sense was the determining factor. The prominence of the signatures of these three bowls is the reverse of the others, where the signature is hidden, when the lid is in place, on the upper side of the bowl's rim. The Courtauld bowl (cat.no.65, pls 3 and 4), signed in both Latin and Arabic script, bears the signatures here. Aga-Oglu (1945/1:39) stressed that a *nisba* without the article *al-* was a Persian characteristic. Mahmud signs himself in the normal Arabic fashion with the definite article. However, conversely, in the Latin transliteration, the *'idafa* seems to be in the Persian form, for it reads **AMALEIMALENMAMUD** rather than the usual Arabic form which would have transposed, presumably, as **AMALUMALENIMAMUD**.

The boxes have a rounded profile and a projecting rim (figs.80 - 82a) but are not identical, the walls of the two British Museum examples, for instance, curving in before jutting out under the rim (fig.80a and b). They are cast so the difference in profile is noteworthy, underlining the variations within a single workshop.

In each case the base of the box echoes the design of the lid (figs.74 and 75). The elements are taken and expanded to allow the outer band of the lid design to cover the walls of the box. In the more complex designs, such as the Cividale piece (fig.70a), the

arrangement of the rather cluttered lid is vindicated by the box. It is noticeable that the design elements of this Cividale box are far more fussy, or Westernised, than the other examples.

(D) The Buckets

Unfortunately, it is impossible to discuss the aesthetic of these in any detail for the only record of the bucket (cat.no.245) illustrated by Pijoan is the photograph in Arte Islam Vol.XII,198, fig.264, which is too indistinct to allow details to be fully distinguished, and the base of the bucket in Madrid is covered by the foot. Fig.264 makes it possible to establish that the body of the bucket has straight sides and a slightly rounded base. The walls are divided into four horizontal bands. The uppermost (a) is made up of quatrefoils alternating with oblong panels ending in ogees, strongly reminiscent of the epigraphic panels featured on Timurid jugs. Within the panels a chain decoration can be seen (fig.14c A4B). The main band of decoration (b) has a series of panels delineated with silver wire, which alternate with cusped roundels. Within each roundel, also drawn in silver wire, is a plain wire cruciform laid over an engraved arabesque ground. Each division has its own engraved motif, so that the impression is two- rather than three-dimensional. Another band, similar to (a), marks the division between wall and base, but the details are too indistinct to discern. On the Madrid bucket (cat.no.233, pl.32), the signature is almost hidden, in true Islamic style, under the curve at the base of the walls, with bands of arabesques to each side. I have not seen the bucket and the Curator found it difficult to photograph the inscriptions. She does not read Arabic but despite this kindly drew them for me. It is possible to read (i) *'amal al-mu'allim Mahmud a-* (sic) (ii) *al-Kurdi yarju al-maghfirat*. Here too the bucket's walls are arranged in concentric bands, but each element is separated from its neighbour by a projecting fillet rib. The basis of the design in the main band is a series of circles that are arranged in two registers, touching their neighbour on three sides.⁽⁷³⁾

Comments

A circular space can be treated in various ways that either deny its roundness or take advantage of it. Those that try to ignore the shape are : (a) an all-over design that is cut off by the circumference;⁽⁷⁴⁾ (b) a line that bisects the circle into two semi-circles;⁽⁷⁵⁾ (c) a figural scene that has to be distorted to fit the confines of the border;⁽⁷⁶⁾ (d) a directional design that determines the angle from which the object must be viewed.⁽⁷⁷⁾ Those that use the shape to underpin the design can also be subdivided : (a) a design that starts at the outer edge and moves in towards the centre;⁽⁷⁸⁾ (b) a design that begins in the centre and moves out towards the circumference;⁽⁷⁹⁾ (c) a division of the circle into equal segments;⁽⁸⁰⁾ (d) a series of concentric bands.⁽⁸¹⁾ Sometimes a design can be made up of more than one of these elements.⁽⁸²⁾

Mahmud's designs work outwards from the centre towards the circumference, with a wheel-like arrangement from a central hub, through spokes, to a rim. The central element, sometimes filled with a signature, sometimes left blank, is the support for a centrifugal design that reaches to the edge of the object. This wheel-like arrangement from a central point in Mahmud's designs echoes a design which was characteristic of Jaziran metalwork. Rice (1950, 629) drew attention to the preference for a design that moves out from the centre among Jaziran artists in the 13th century. The centrifugal element of metalwork made for Badr al-Din Lu'lu can be seen not only in the whorl of ducks on his box in the British Museum (previously Henderson collection, 1878 12-30 674, Rice:1950,fig.1), harpies on his trays in the Victoria and Albert Museum (inv.no.905-1907, Rice:1950, fig.2) and Munich (Sarre and Martin:1912, Rice:1950, fig.2) and hares on his silver bowl in the State Hermitage (inv. no.3690, Rice:1950,629, n.4) but also in the interlaced geometric roundel on a miniature box by Isma'il ibn Ward al-Mawsili of 617/1220 in the Benaki Museum, as well as a similar design on a basin dated 650/1252 by Da'ud ibn Salama al-Mawsili (Case 65, no.17, Rice:1953/1,

fig.3; Musée des Arts Décoratifs, Rice:1953/1, fig.4). The outward movement of the geometric roundels is emphasised by the straps of the interlace joining the outer fillet frame on the circumference in each case, which in turn gives onto an arabesque ornament. A similar outward movement is found in Timurid design. The clearest examples of this are found in the carpet designs illustrated in manuscripts, collected by Amy Briggs in "Timurid Carpets" (1940,1946)⁽⁸³⁾ but this feature is also present in the metalwork motifs (see figs.Appendix figs.T9,TH1-2).

The Mamluk preference, on the other hand, seems to have been for a design that moves in towards the centre. The equivalent to the animal whorl can be found in the interior fish whorl (pl.40, fig.56) where the six fishes' heads point towards a central disc.⁽⁸⁴⁾ The epitome of this preference is found in the circular inscriptions (usually described as "radiating") on Mamluk metalwork seen, for example, on the brass basin made for Hugh IV de Lusignan (Rice:390-402,fig.1) or an incense burner of al-Malik al-Nasir Muhammad ibn Qala'un in the Nuhad es-Said Collection (Allan:1982,86-89), where the *hastae* point inwards from the encircling inscription towards the centre.⁽⁸⁵⁾ This basic approach to design is more important than it might appear and is, I believe, a key factor in determining the nationality of a craftsman.

It is believed that the way of reading a design is subconscious, determined by the environment in which an artist is raised. An artist will adapt a solution already extant rather than create something entirely new and he will use a new motif in a way familiar to him.⁽⁸⁶⁾ This concept is discussed more fully in the next chapter. Through his approach, analysed above, I believe Mahmud reveals himself to have been from the area of Anatolia or Western Iran. It is possible to see the same aesthetic that is inherent in Mahmud's work in a dish in the Victoria and Albert Museum (inv.no. 374-1897,fig.76) which is dated 902/September 1496-August 1497.⁽⁸⁷⁾ Here a central six-legged swastika in a roundel gives onto a tripartite design of three lobed lime-shaped medallions which reach to a

plain fillet border. Round the cavetto runs a band of alternating roundels filled with "Y" interlace and oblong cartouches with inscriptions of a distich from the Shah-Name, another from Daqiqi and good wishes from Sa'adi's Bustan (Melikian-Chirvani:1982,252). Behind the inscriptions and tinned decoration in relief is a cross-hatched ground. The main area, between the lime medallions, is filled with heavy "linear" Chinese cloud scrolls. Dr Allan (1986, 142) has recently argued that this dish is Turcoman rather than Khurasanian. His arguments were (1) the layout of the cavetto is closer to Mamluk than to Persian design; (2) the form of the dish links it to similar Ottoman Iznik dishes with the same rim decoration of linked "Z"s; (3) the size and exuberance of the ornament is reminiscent of the 1475-81 Khamseh of Nizami commissioned by Ya'qub Beg and the 1465 Blue Mosque in Tabriz. Mahmud's ornament is small-scale but the centrifugal arrangement, the cross-hatching, the triple-lobed geometric motifs and Mamluk elements are in common with the dish whose design, too, is based on a series of contiguous circles.

Mahmud al-Kurdi also used the circle as a basic division in the construction of his designs. His approach, although lucid and intelligent, is to a certain extent predictable. Given the lid, for example, it is possible to anticipate the design of the bowl (figs.74 and 75), or vice versa. His form of signature remains constant too, as we have seen. There are no Venetian shields on his work, which would be considered to be entirely Islamic except for the odd prominence given to his name and the bilingual signature on the Courtauld bowl. The elements of the design are both Mamluk (the "blazon" signatures in roundels and across the central field, and the lotus blossoms [cat.no.160, pls 7-9] on the outside of the salvers and the Cividale bowl) and Persian, many of them apparently reliant on motifs taken from Timurid metalwork (fig.19a-d, Appendix figs T7). But in both cases the way the elements are expressed is unlike the parent influence. From the Mamluk point of view, the lotus blossoms, although recognisable as such, are clumsy and stiff, and

are the only example of figural representation in the *oeuvre*, the other elements being abstract. They are far removed from the flowing elegance of the true Mamluk blossom, seen for example on the bottom border of Qa'itbay's candlestick for the Shrine of the Prophet (Atil:1981,101),⁽⁸⁸⁾ or in the naturalistic blossoms of the early 14th century (fig.50c). As for the Timurid influence, the equal weight given to each element in Timurid metalwork has been abandoned by Mahmud, who delights in different textures and emphases. Although the surface is treated in a sense in a two-dimensional way, each shape being individually filled with its own engraved arabesque design, heavy wire arabesques are used to add drama and colour. Even in the engraved decoration, varied treatment of the arabesques gives a different texture to individual areas. For example, on the lid of British Museum 1895 5-21 2 cat.no.67, pl.30, fig.74, the borders have a bolder design than the background. This idea is extended on the bowl where sections of the border are filled in turn by : (a) heavy wire on a curled ground; and (b) a chain interlace (fig.14c A4B) which contrasts with the scrolling arabesques in the spandrel shapes below. Colour is added too by the tiny cross-hatches behind certain areas like the signature or wire-inlaid focal points.⁽⁸⁹⁾ Cross-hatching was popular in Timurid metalwork, giving way to parallel hatching under the Safavids;⁽⁹⁰⁾ but it was used indiscriminately, not to add emphasis to particular areas.⁽⁹¹⁾

An answer to the problem of where Mahmud al-Kurdi was working must now be attempted. Any solution has to remain tentative in view of the lack of textual evidence and, in particular, in view of the ease with which influences spread. We saw above how Timurid elements in Cairene manuscript illumination which are echoed in Mahmud's work led Dr Allan to believe that the Kurdish master was working in Cairo. Only one geographical area, to the mind of this writer, offers a satisfactory meeting point for the different elements in Mahmud's work, just as only one period in the history of that area offers the opportunity for the breadth of influence, as well as a link with the West : Eastern Anatolia or North-Western Iran in the reign of Uzun Hasan. The link between Venice and the Acqu-

yunlu has been noted before (Robinson:1984,356) but no stylistic analysis of Mahmud's work, to my knowledge, has yet been fully attempted.

(E) Summary

To summarise the relevant points :

1. As described above, Uzun Hasan had the support of the semi-autonomous Kurdish principalities within and immediately adjoining his lands (Woods:1976,104-5). Mahmud describes himself as "The Kurd."
2. Uzun Hasan's capital was in Diyar Bakr, the original fief of the Aqqyunlu tribe from before the period of Timur (Encyclopaedia of Islam¹,1065). When negotiating with Abu Sa'id after the Timurid leader's invasion of Azerbaijan in Rabi'I 873/October 1468, Uzun Hasan was to return to Diyar Bakr with the promise of the governorship of any future Timurid conquest in Anatolia, Syria or Egypt (Woods:1976,262). Later, after the defeat of the Timurid forces, he moved it to Tabriz (112). He also controlled Khurasan, Fars and Kirman (113-114). The Timurid elements in Mahmud's work reveal a first-hand knowledge of the metalwork of these areas.
3. On 19 Dhu'-l Hijja 873/30 June 1469, Uzun Hasan's envoy bore the severed head of Abu Sa'id to Cairo in triumph. With it went a victory proclamation laying claim to a sovereignty backed by the Qur'an and the corpus of Prophetic Tradition (Woods:1976,114-118; Newhall:1987,30-31). In 877/1472 Uzun Hasan went so far as to express his intention of overthrowing the Mamluk regime which, "because of the servile origins of its masters, was 'an outlandish heresy'" (Newhall:1987,31 quoting Woods,129). Mahmud's misuse of the Mamluk blazon roundel and his self-conscious quotation of the lotus blossom show a knowledge of Mamluk metalwork. Moreover, the use of the central field of a tripartite roundel, traditionally reserved for

the Sultan's titles or, at least, an amiral blazon, can be read as a deliberate insult, in line with Uzun Hasan's insistence on the base origins of the ruling Mamluks.

4. One of the motifs that appears in Mahmud's work is a cross, either outlined in silver wire with cusped ends (cat.no.68,pl.26) or as straight wires intersecting to form a "noughts and crosses"-like frame (cat.no.65). Uzun Hasan's marriage to the Greek Comneni princess is one of the most astonishing features of his extraordinary career. It is possible to read a reflection of the Muslim Aqqyunlu ruler's leniency towards the Christian church in Mahmud's use of the cruciform motif in the metalwork, just as it offers one solution to the puzzling (in Muslim terms) architectural form of the Masjid-i Kabud in Tabriz. This building has a large central dome with what in Christian terms would be a vaulted ambulatory round three sides, the fourth extending into a domed exedra. The tilework of the Masjid-i Kabud also features a repeated cross motif, the arms made up of split palmettes emerging from a central rhomb. At the cardinal points of the crosses appear the name of Allah.⁽⁹²⁾

5. One of the puzzling aspects of the dual signature on the Courtauld covered box (cat.no.65) is that the Latin is a transliteration rather than a translation. To an Arabic speaker (or a Persian speaker, the inscription is not clear) presumably a transcription would not be necessary, while to a non-Arabic speaker the transcription would be unintelligible. If the bowl was a diplomatic gift or ordered by one of the envoys while in the court of Uzun Hasan, an interpreter would have been to hand. Thus it is hard to see in what circumstances the transliteration would have been appropriate, unless the phonetics or appearance of the unintelligible words had some significance to a Western owner. Elsewhere I have explored the possibility of a magic or talismanic link (Auld: Forthcoming). But another solution may lie in the exchange of envoys between Venice and the Aqqyunlu from 1463 to 1475. Perhaps the box was a diplomatic gift to a man who needed no translation of the epigraphy but

who, it was felt by the donor, would appreciate a recognition of his national status. Unfortunately, it is not known where the box was acquired for the Gambier-Parry collection.

6. The aesthetic of Mahmud is alien to that of the Mamluks. His designs start at the centre and move out towards the border, contrary to Mamluk objects. His work is more varied and dramatic than Timurid metalwork, although the extreme fineness of the arabesque ground is reminiscent of it. Although the individual elements of his designs show both Mamluk and Timurid influence, in essence his work does not quite belong to that of Syria and Egypt or Persia; but it is close to the Victoria and Albert dish (inv.no.374 1897), recently described as Turcoman.

(F) Conclusion

Although it is possible to argue that Mahmud was working in Cairo no matter where he was trained, it is more reasonable, given the points above, to conclude that he was working in the train of the Turcoman Uzun Hasan. It is even possible to posit a date bracket. The development of a master's *oeuvre* is usually towards complexity. It would follow that the Bologna incense burner (cat.no.2, pl.31), which is the simplest in design and signed simply "Mahmud" rather than "the master Mahmud", is an early piece. It has no hint of Western or Mamluk influence, which would date it to before the rapid expansion of Uzun Hasan's power in 858-861/1454-1457. The style of the inscription on a cross-hatched ground and the inlaid geometric divisions can be compared to a simplified form of the decoration on a penbox in New York.⁽⁹³⁾ It is true that the incense burner does not have any representational motifs, and the ground is covered by small engraved arabesques rather than cross-hatched; but the general approach of the wire-drawn divisions is similar. The salvers (cat.nos. 160-162, pls 7,21,22), with their Mamluk quotations, centralised design and more complex craftsmanship, can be considered later in date. It is reasonable to suppose that they were made after Uzun Hasan's direct contact with, and defiance of, Mamluk Egypt

in 873/1468. The boxes show a progression from simple to complex designs. The least complex, and closest to the New York penbox, is the Courtauld Institute example (cat.no.65, pls 1 and 2) with the dual signature. It might therefore date to after the first contact with the Venetian Senate in 1463. British Museum 1895 5-21 2 and Victoria and Albert 2290-1855 (cat.nos 67,68, pls 30 and 24-26) occupy the middle position, while the most complex are those in the British Museum (1895 5-21 3, cat.no.66, pl.29) and Cividale (cat.no.69). This last example includes Western, almost Baroque, shields among its "linear" motifs. It could be argued that a prolonged exposure to Venetians in the court of Uzun Hasan would account for the increase in Western influence, which would put the date for this bowl towards the middle of the 1470s. While this proposed solution must, in view of the lack of documentary evidence, remain hypothetical, it seems reasonable to suggest that, from about 1450 to about 1475, Mahmud al-Kurdi was working in the train of Uzun Hasan, the Turcoman leader of the Aqqyunlu, based primarily in Eastern Anatolia or Western Iran.

Notes

(1) A discussion on the difference between the Western and Muslim approach to design is found in Chapter 3.

(2) *"Messer Paulo Rizzo Orevese alla Insegna della Colombina in Ruga degli Orefici in Venetia."*

(3) Vite degli artisti, is divided into three parts headed On Architecture, On Sculpture and On Painting. The technique of inlay appears under "On Painting", Ch. XX (XXXIV), 279-280 in Vasari on Technique (Maclehose:1960).

(4) The origins of the word *tausia* are obscure, supposedly connected to *intarsia*, inlay in wood. For a discussion on entymology see Maclehose:1960, 279 note 1.

(5) That the written word followed the spoken is proved by numerous entries in the Archivio di Stato of Venice, see, for example, Arch. di Stato, Capitolare de Cinque Savi alla Mercanzia no.1, ff.6 verso and 7 recto, dated 1517.

(6) Inlay became popular in Islamic metalwork from the mid-12th century and therefore after the time of Theophilus, who is probably to be identified with Roger of Helmarshausen, writing between 1110-1140. The earliest known manuscript of de diversis artibus dates from the mid-12th century. For a discussion on the identity and date of Theophilus Presbyter, see Theophilus:1979, Preface to Dover edition and xv-xvii.

(7) Lavoix did not identify these by name other than the Fondaco dei Turchi, established by decree in 1575 in the district of San Giuliano, and ten years later relocated in the palace of the Dukes of Ferrara in San Giacomo dell'Orio, today the Natural History Museum; in other words, the Fondaco is too late for the bulk of metalwork in this study.

(8) See Lorenzetti:1975, 412. Another theory is that that Fondamento and Campo dei Mori are named after the Fondaco dei Arabi which once stood on that site; but there is no documentation to support either claim.

(9) The main chroniclers for the period were al-Maqrizi, d. 845/1442; Ibn Taghribirdi, d. 874/1470; Ibn Iyas, d. c.900/1524, and Ibn Tulun, d. 953/1546, see bibliography for details.

(10) The Venetians had a consul at Damietta into the 16th century, Heyd:1936, 428, n.4, quoting Cod.Ital.8 in Berlin Library, Wilken Abh. der Berl. Akad., ann. 1831, Hist.K.Phil.I, 29-46, Malipiero Annali, 610, Sanuto, Diar.I, 914, 1032, and two at Alexandria. Genoa, Pisa, Florence, Palermo, Ancona, Naples as well as French cities such as Marseilles and Narbonne, the Catalans and Ragusans all had *fondachi* at one time or another. See Heyd:1936, 432, quoting Amari:1863, 208 ff, 339, 371, 381, 386, Anglure, Fondique de France I and the travellers Felix Fabri and Breydenback, notes 1, 9.

(11) For example, that from Florence of 1507-8 to the court of Qansuh al-Ghuri, Amari:1863,219, 388, Heyd:1936, 428.

(12) Heyd:1936,429-430 and notes 10 quoting Lannoy,68,101 ff, Felix Fabri III,175 ff, Petr. Martyr de Angleria, Legat. Babyl. 389, Leo Africanus, in Ramusio, Navigationi e viaggi I:1563,82 and map of Alexandria in Desjardins, Apercu Histor. sur les embouchures du Rhône etc. Paris 1869,pl.II, Mas Latrie ed. de Machaut, 280.

(13) Heyd p. 455, quoting Malipiero, Annali,614 ff, Rawdon Brown, Calendar of Statepapers, Venet.I,115 ff. on an instance in 1464 when Egyptian subjects had hired Venetian boats at Alexandria to take them to the Barbary Coast. They were robbed and arrested at Rhodes, whereupon the Sultan threw the Venetian Consul and all the Venetian merchants then in Alexandria into prison. In 1473 the Venetian consul at Damascus was given the "bastonnade", Heyd:1936, 456, quoting Piloti,412 ff., Malipiero,619. This may have been connected with Qa'itbay's suspicion that Venice was backing Cyprus in coastal raids on Mamluk territory. See Newhall:1987,36.

(14) Note 3, quoting Amari:1863,258,281,285,288,290,339; Mas Latrie, Hist. de Chypre II,306; Taf.et Thom, II,338,486.

(15) Heyd:1936,479, quoting Ammirato, Istorie Fiorentine Part I, vol.II, Florence 1647, fol.997. See too U. Tucci, "The Psychology of the Venetian Merchant in the 16th century," in (ed.) Hale:1973,346-379, quoting G. Contarini's La Repubblica e i magistrati di Venezia, published in Venice 1544, that young noblemen saw apprenticeship as the preliminary phase of a *cursus honorum* of future life.

(16) On 21 December 1421, according to Sanuto 941, while the instructions have the date 23 December, Taf.et Thom. unpublished, quoted Heyd,473 n.6.

(17) Heyd,474 n.3, letter from Barsbai to Doge Thommaso Mocenigo dated 30 April 1422 and treaty dated 23 April 1422, Taf.et Thom. unpublished.

(18) Heyd,476 n.1, quoting Weil, Gesch. der Chalifen V, 183 n, who took the information from Maqrizi.

(19) On the treaty see Wansbrough:1963,503-530.

(20) Newhall,38 quoting Lane:1973,288.

(21) For Clauses VII,VIII,IX, see Wansbrough:1961,211-212.

(22) Heyd,441-442, quoting Piloti 376,404 and Harff,101.

(23) Heyd,463 n.5, quoting Sanuto,1199.

(24) Dated 2 August 1484; Raby:1982,78 n.115,93, citing Venice, Museo Correr MS P.D. 506/19. He also refers to another goldsmith, Jacopo Bissolo, who went to Damascus in the first decade of the 16th century.

- (25) Lane:1968/1,22-46 quoting Arch.Stato Venez. Senato Mar.Reg. 15, f.145.
- (26) Lane:1968/2, quoting Arch.Stato Venez. Senato Mar.Reg. 32, f. 35-6.
- (27) Pullan:1968/1,16, quoting Arch.Stato Venez. Senato Terra, f.14, 6 Sept. 1551/52, ff 12v-13,16v-17v,18v,81v-82,101v-111v.
- (28) Pullan:1968/1, quoting Arch.Stato Venez. Senato Terra, f.90,17, May 1584.
- (29) Fabronius:1784 II,337, a letter from Pietro da Bibbiena to Clarice de' Medici in Rome on the Ambassadorial gifts.
- (30) Arch.Stato Venez. Libri Commemoriali XVI, fol.74, see Wansbrough:1961,204-209, especially Clause XIII,209.
- (31) Wansbrough:1963,514 gives the figures of 80 ducats per load in 1504, rising to 140 ducats in August that year. In February 1505 the price was raised again and the Venetians were constrained to buy 250 loads instead of their usual 210 loads, at 192 ducats a load.
- (32) Wansbrough:1963,516, quoting Sanuto, Diarii VI,419-420,425, 458, VII,122, and Priuli, Diarii II,422.
- (33) "*Et questo segretario fu mandato senza prexenti, che molti anni fa non è stato uxitata a questo modo*", Sanuto Diarii, VI,424-5, quoted by Wansbrough:1963,516,n.3.
- (34) The following account relies heavily on the doctoral thesis of John Woods, The Aqquyunlu (1976), who lists the narrative and historical sources used by him to construct his account in Part III of Chapter 1, "Themes and Sources".
- (35) Later, more warlike measures had to be taken to subdue the Kurds, who were pro-Qaraqyunlu. The 1468-9 campaigns resulted in Uzun Hasan's temporary hegemony over most of northeastern Kurdistan, but led ultimately to a serious weakening of his power. See Woods, 123.
- (36) Fazlullah Khunji-Isfahani on Sura XXIV,55; Davani, apud Woods, 115-116 and 118 ff.
- (37) For a full discussion on the significance of Qa'itbay's title, see Newhall,67-69.
- (38) Berchet,3 n.4, quoting Marino Sanudo, Cronaca ms.
- (39) Berchet,5 n.5, Malipiero, Annali, Arch.Storico italiano VII,68.
- (40) On the problems confronting Venetian diplomats, see Queller: 1966 and 1973.

- (41) Berchet, 8 n.l, quoting Deliberazioni segrete, vol. XXV; Cornet, 23.
- (42) For a full account of the diplomatic relations between Venice and Uzun Hasan, see Berchet: 1865.
- (43) Hahnloser: 1971, 101-4, no. 117; Buckton: 1984, 209-11, no. 29, full bibliography 211.
- (44) Berchet: 1865, 10 n.l, quoting Registri Senato Terra, tom. VI, 186, 188, 191, 194, Arch. ven. gen.
- (45) Berchet: 1865, 13 n.l, Malipiero, Annali, VII, 83.
- (46) Lavoix: 1877, 18 "*le séjour des artistes arabes dans une grande partie des villes de la péninsule entretenait à Pisa, à Florence, à Gênes et à Venise, cette influence dans leurs oeuvres qui se répandit dans tous les arts du dessin en Italie.*"
- (47) Lavoix: 1862, 28 "*Je suis porté à croire qu'il séjournait en Italie, dans ce pays dont l'écriture lui était familière.*"
- (48) Pope: 1930/1, 184, "(craftsmen) following some of the Venetian embassies to Persia, migrated and set up shops in Venice that had important consequences for European art. Quite a number of pieces in this style are signed by Mahmud al Kurdi."
- (49) Kühnel: 1963, 180, 184, Pl. 146, "*Wir wissen dass (in Venedig) eine ganze Zunft sarazenischer Handwerker ansässig war"; (dass) "Tauschierung von Syrien nach Venedig getragen wurde und dort noch bis ins 16. Jahrhundert von mohammedanischen Meistern gepflegt wurde.*"
- (50) In Pope and Ackerman: 1938, III, "Metalwork after the Early Islamic Period", 2513 ff.
- (51) I am deeply grateful to these scholars for their help and advice in introducing me to the intricacies of archival search and offering me the results of their own work.
- (52) Arch. di Stato Ven., Capit. Cinque Savii alla Merc., Indice delle Scuole Piccole e Suffragi, Mar. di Confraternite di Arti Mestrieri, Provv. alla Sanità (Necrologi di turchi). The archives of the Santo Uffizio (Inquisition) relate to those captured by Turks or Algerian pirates who turned Muslim. (Information in a letter to the writer from Professor Pullan dated 30.6.1986). I am also deeply indebted to the generosity of the Trustees of the Gladys Krieble Delmas Foundation who financed two visits to Venice to study the archival material.
- (53) Arch. di Stato Ven. 217, busta 729 ff. Fraterna della Misericordia degli Ebrei Tedeschi di Venezia, ed altre Fraterne degli Ebrei.

(54) Ewer of Zain al-Din Jawhar al-Mu'ini, published in Melikian-Chirvani:1969/1,99-132,119-124, figs 20-25; ibid,116, basin with name of Sultan Qa'itbay, Gluck and Diez:1925,583,pl.451; Melikian-Chirvani:1969/1,116-119,figs.16-18, basin of Muhammad ibn Saif al-Din Uzbek 1482-1495, Victoria and Albert Museum, London,inv.no.206.1892; ibid,116, basin with name of the Amir Qanibay (sic), Islamic Museum, Cairo,inv.no.4121, Wiet:1932,131,pl.LII where the name reads Saif al-Din Ylbay al-'Alai following Ibn Iyas II,100,125,154; Melikian-Chirvani:1969/1,118 two candlesticks, Cairo Museum inv.nos 4297, 4072, Wiet:1932,118,107-109,pls XXXIV,XXXIII.

(55) See Vasari, Le Vite, Ch.XXXIII,169 "*Laonde veggiamo oggi dimolti bronzi et ottoni e rami commessi di argento et oro con arabeschi, venuti di que'paesi* (Damascus and "*tutto il Levante*"). On the presence of Florentine arms on Islamic objects, see Spallanzani:1980/2,99 n.6., where Dr Spallanzani suggested that arms were added to imported pieces.

(56) These are treated here and not included among the objects in the catalogue because they have inscriptions or are engraved, with no silver inlay.

(57) See Rice:1956 on a brass basin made for Hugh IV de Lusignan.

(58) See Rice:1949-50, especially 373-375, figs 3 and 4, pls 8 and 9.

(59) If cast in green sand, it would have been necessary to form to half shells, later soldered to make a cylindrical vase. The green sand method of casting is discussed under Section 1A of Chapter 2. Casting by means of piece-moulds, such as plaster or clay, as well as green sand, is described by Maryon:1971, Ch.XXVIII,204-208. The lost wax method of casting, which is described in Maryon:1971,209-215, Ch. XXX,219-227, was probably known in the Mamluk workshops, although no metalwork with cast decoration is known to me. It was certainly known in Ottoman Turkey, for although a metal founder, Bartholomeo, accompanied Gentile Bellini to the court of Mehmet II in Istanbul in 1479, and another, Costanzo da Ferrara was also employed by the Sultan, it was probably because of their skill as portraitists rather than metalworkers that they were commissioned. For medals of Mehmed II by Costanzo see Hill:1930 vol.I,80, vol.II, nos 321-2; see too Raby:1981,42. The documents relating to Gentile's sojourn in Istanbul 1479-81 are published in L. Thuasne, Gentile Bellini et Sultan Mohemmet II, 1888,67-68, the relevant extracts from Marino Sanudo and G.M. Angiolello also appearing in Gilbert:1980,216.

(60) Reproduced in J. Lauts, Carpaccio:Paintings and Drawings, London, 1962,pl.22,cat.no.505.

(61) Vasari, Le vite,1550, see note 55 above. It is worth underlining that Vasari was employed by Duke Cosimo de' Medici. Two spherical inlaid incense burners in the Museo Nazionale delBargello (inv.nos 299 and 292) were in the collection of Cosimo I and the hemispherical bowl and cover signed by Zain al-Din (inv.no. 317) was in the collection of Duke Ferdinand I. On the metalwork in the Medici

collection after Cosimo was made duke in 1569, see Spallanzani: 980/2,101-102, document 5,114; on Duke Ferdinand's collection,102-103.

(62) It is possible that the terms used in 15th and 16th century Italian inventories, "*domaschini*" and "*alla domaschina*", may reflect the difference between an object made in the Middle East and one made in the West that copied the Middle Eastern style. However, such terms must be approached with extreme caution. See Spallanzani:1980/2, 95-99.

(63) The precise meaning of this word is unclear. In Dizionario etimologico italiano V, eds.C.Battisti, G.Alession, Florence 1957, *tola* is believed to come from French, *tôle*, "sheet metal", which in turn is probably from *taula*, a corrupt form of *tabula*, as *faula* is derived from *fabula*.

(64) See, for example, her behaviour over the Fourth Crusade, when she was negotiating a trade treaty with the Mamluk sultan al-Adil at the same time as bargaining with the Crusaders over the transport of their forces; Runciman:1954,III,113.

(65) On the possible effects of a 16th-century sea journey on metal, see Dallam:1893,58. Dallam, sent out from England with a diplomatic present for the Sultan, opened the chests containing the organ on 20 August 1599 to find "all glewinge worke was clene Decayed by reason that it hade layne above sixe monthes in the hould of our ship ...; lyke wyse divers of my mettle pipes weare brused and broken".

(66) The script has no indication of vowels to help in the decision between the verbal form and the noun. The only clue is contained in the transliterated form of the signature on the Courtauld box and cover (cat.no.65, pl.4) which would appear to be a Persian form of '*idafa* rather than Arabic (see J.A. Haywood and H.M. Nahmad, A new Arabic grammar of the written language, 2nd edit. London, reprinted 1982,63-67).

(67) See, for example, Wiet:1932,inv.no.4461,pl.IV, interior of pence; inv.no.3958,pl.VI, lid of box; inv.no.242,pl.XV, lamp; inv.no.383,pl.XVI, lamp; inv.no.383,pl.XVII, lamp; inv.no.130, pl.XXVI, lamp; inv.no.4072,pl.XXXIII, candlestick; inv.no.4297,pl. XXXIV, candlestick, etc. In each of these cases, the central field has either an armorial blazon, the name of the Sultan or good wishes to the ruler.

(68) See for example : (1) Manuscripts : Gray:1977,54, Khusrau and Shirin of Nizami, "Farhad brought before Shirin", Tabriz 1405-1410, no.31.34, 3rd miniature, Freer Gallery of Art, Washington DC, cornice and dado; 75, Anthology of Iskandar Sultan, "Bahram Gur introduced into the Hall of Seven Images", Shiraz, 1410, Gulbenkian Foundation, Lisbon (125), cornice and dado; 86, Anthology of Baysunghur, "Scene from a love story" copied by Shams al-Din, Herat, 1427, f.26v. Berenson Collection I Tatti, Florence, again as lintels over door and window; 117, the Khamsa of Nizami, "Turkish bath visited by the Caliph Ma'mun" by Bihzad, Herat 1494, Or.6810, f.27v, British Museum,

on the door lintel. (2) Architecture : Konya, Karatay medrese, 650/1251-52, the outer border of the walls below the pendentives, dome and arches, Seherr-Thoss, 254, pl. 117.

(69) Lings: 1976, pls 78, 79, Cairo, National Library, 98 I, f. 178r; and Cairo, National Library 96 II, ff. iv-2r.

(70) See Newhall: 1987, 197-98, who stressed the diversity of the manuscripts produced under Qa'itbay.

(71) Cairo National Library 72, dated 1313, frontispiece to part 19; ditto, frontispiece to part 23; ditto, frontispiece to part 22; Cairo National Library 55, probably 1363-1376, ff. lv-2r; Cairo National Library 7, ff. lv-2r, 1369; Cairo National Library 8, ff. lv-2r, 1378; Cairo National Library 6, ff. lv-2r; Cairo National Library 98 I, f. 178r, 1425.

(72) Cairo National Library 9 I, ff. lv-2r, 1369; Cairo National Library 10, ff. lv-2r, 1376.

(73) The arrangement is similar to the first two registers of the design illustrated in el-Said and Parman: 1976, 8, fig. 11a.

(74) Seen on the base of hemispherical box, British Museum inv. no. 1878 12-30 697, cat. no. 103, Baer: 1983, 134 fig. 112.

(75) 10th century Samanid plate, Freer Gallery of Art inv. no. 54.16, Atil: 1973, 26-7, no. 7.

(76) Kashan plate signed by Sayyid Shams al-Din al-Hasani, Freer Gallery inv. no. 41.11, Atil: 1973, 68-9, no. 28.

(77) Ottoman, 16th century plate, Freer Gallery inv. no. 55.8, Atil: 1973, 176-77, no. 81.

(78) 10th century Samanid plate, Freer Gallery inv. no. 52.11, Atil: 1973, 28-9, no. 8.

(79) Seljuk plate, mid-13th century, Freer Gallery inv. no. 09.112, Atil: 1973, 98-9, no. 43.

(80) Il-Khanid plate, late 13th century, Freer Gallery inv. no. 08.161, Atil: 1973, 160-61.

(81) Seljuk plate, late 12th-early 13th century, Freer Gallery inv. no. 45.8, Atil: 1973, 86-7, no. 37.

(82) 10th century Samanid plate, Freer Gallery inv. no. 57.24, Atil: 1973, 36-7, no. 12.

(83) See especially Briggs: 1940 figs. 26, 33, 41, 42, 53, 54, 58.

(84) See Baer: 1968, 25-6 where she interpreted radially placed fish as Mamluk.

(85) Dr Hillenbrand (1988,33-34, pl.III) read the circular "radiating" naskhi inscription in the inverse sense : "The ascenders fan out from the central disc ... for all the world like the rays of the sun". In my view, the *hastae* terminals point towards the central roundel, their place of departure being the epigraphy placed round the outer circumference. Even when the apparent aim of the designer was to produce the effect of rays emanating from a light source, the "beams" have in fact no contact with the central disc. It is particularly noteworthy, I believe, that even here where a design might be expected to fan outwards, the Mamluk craftsman still "saw" the motif as beginning at the outer edge and progressing inwards.

(86) For a recent discussion on the way ornament is used, see Rawson:1984,24-32 who draws on the work of Alois Riegl, (Stilfragen (1893)) and Professor Sir Ernst Gombrich, especially Art and Illusion (1960) and The Sense of Order (1979).

(87) Melikian-Chirvani:1982,250-52,no.110, where Dr Melikian-Chirvani catalogued it as "Khorasan".

(88) The split palmette stem of the arabesque cannot be seen as representational, being too abstracted to be a recognisable botanical species.

(89) Hemispherical covered box, Victoria and Albert Museum, inv.no.2290-1855,cat.no.68,pls 24-26, where the three rhombs that emerge from knots joined to the central star have cross-hatched grounds, as does the central signature; salver, State Hermitage Museum, inv.no.VC.235, cat.no. 161,pl.21, where the signature, heavy arabesques in the main band and the borders all have cross-hatched grounds.

(90) See Melikian-Chirvani:1982,287-88,no.123, Victoria and Albert, inv.no.241-1896.

(91) See, for example, the ewer in the Museo Nazionale del Bargello inv.no.Bronzi 289, Spallanzani and Curatola:1981,13-16,no.3.

(92) For a ground plan and elevation drawing, see Masterpieces of Iranian Architecture, published by the Ministry of Development and Housing, Tehran,82-92. I am grateful to Dr Hillenbrand for pointing out to me the unusual features in the architecture of this building, which also displays links with the early Ottoman style, see A.Kuran, The Mosque in Early Ottoman Architecture. See too Burckhardt:1976, pl.48.

(93) Metropolitan Museum of Art, Henry C. Moore bequest, inv.no. 91.1.536; Melikian-Chirvani:1982,233-4,fig.59; Komaroff:1984, pl.75.

Chapter 2

Inlaid Metalwork : History and Technique

Section 1. Form and Content

Having looked at the social context in which the "Veneto-Saracenic" objects were manufactured, it is now time to look closely at the pieces themselves, the techniques involved in their making, and how the style developed.

The majority of objects in this catalogue are unsigned. None is dated, except the salver in Vienna made by a Western master (cat. no.198). Although European coats of arms appear on a significant minority (cat.nos.59,72,87,95,104,111,112,127,136,165, 169,175,176, 185,186,199-204,210-212,216,219,254,265-66), these are too general to be helpful in pinning down a particular patron and therefore a *terminus post quem*.⁽¹⁾ The probable place and date of manufacture of the objects, therefore, have to be deduced either from the decorative vocabulary, from the techniques used in their manufacture or by chemical analysis of the metals.

(A) Manufacture.

Unfortunately, to date very few of the pieces have been analysed in a laboratory.⁽²⁾ It is also the case that even after an analysis of the metal, it is often impossible to deduce a provenance, the analysis only allowing the objects to be grouped according to alloy. Until more data has been collected to allow a proper comparison, therefore, it is not possible at the present either to suggest a tentative solution as to the origins of the objects or even to group them from the point of view of their metals. We have to rely on stylistic comparison, which is controlled to an extent by technique.

The techniques used to make a "Veneto-Saracenic" object depend on the shape and are often disguised by the inlaid decoration, which effectively camouflages any seam. The hemispherical bowls and covers were either cast, or were raised from sheet metal and then spun on a lathe.⁽³⁾ The boxes with a heavy protruding rim (Type A, see figs.80-82a) were first cast, and then spun, while the thinner walled examples (Type B, fig.82b) were raised from sheet metal. The interiors of the boxes and the covers bear the tell-tale central point and concentric rings of spinning (Atil, Chase and Jett:1985, 179). Although it is not possible to be sure of the method of casting, which could have been by the lost-wax method or by use of a mould, Dr Allan, whose work has cast a welcome light on mediaeval Islamic metalwork techniques, drew attention to the use of green sand moulds which were apparently already in use in Amida in the mid-12th century, to judge by an account in al-Jazari's Kitab fi ma'rifat al-handasiyya (Allan:1979,62). However, the technique seems only to have come into general use in the West later, for no mention of it was made by Theophilus Presbyter in de diversis artibus of c. 1110-1140 (Theophilus:1979). By the end of the 14th century, Cennino Cennini used ashes to cast a seal or coin (Cennini:1960,130-131) and Biringuccio, in de la pirotechnia, published in 1540, gives a detailed account of the method (Maryon:1971,216). It is possible therefore that exact copies of Islamic originals were made in the West by this method, just as I argued in the last chapter that Islamic craftsmen could have copied Western shapes by casting. By contrast, some flat or slightly domed lids of the hemispherical boxes bear the vestiges of hammer marks and must have been raised from sheet metal; but these are the exception. The candlesticks were cast in several pieces and then assembled either by solder or by screws. The salvers pose no problems, having been raised from sheet metal.

(B) Decorative Techniques

The main element of the decoration of the "Veneto-Saracenic" objects consists of silver and, less frequently, gold inlaid into the base metal in intricate patterns. Although Lane Poole (1886/2,451 ff.) thought he could detect the difference between Venetian and Mamluk work through the inlaying technique, he was assuming men like Mahmud al-Kurdi were working in Venice and his argument is therefore now suspect, as we saw in Chapter 1; and in addition he was drawing his conclusions from a limited number of objects. Nor were the techniques used in the Islamic world always the same, as he seemed to indicate. The quality of the work and the skill displayed by the Islamic artists were recognised in the West, to judge by the rare comments on the arts by travellers to the Middle East and by the number of Islamic objects in Western collections.⁽⁴⁾ Moreover, craftsmen like Benvenuto Cellini and Giorgio Vasari voiced their admiration for the technical virtuosity of Islamic inlaid metalwork while others, like Leonardo da Vinci, Holbein and Dürer, created designs that closely echoed Islamic examples.⁽⁵⁾

The travellers included Simone Sigoli, who visited Damascus in 1384-5. His comments on the quality of inlay work that he saw, which he attributed in part to a law compelling a son to follow his father in practising a trade, raise an intriguing problem on the precise meaning of the word "*figura*". He described the metalwork in the following terms : "*Ancora vi si fa grande quantità di bacini e mescirobe d'ottone, e propriamente paiono d'oro, e poi ne' datti bacini e mescirobe vi si fanno figure e fogliami e altri labori sottili in argenta, ch'e una bellissima cosa a vedere*". It would be useful if his words could be seen as a precise description of the appearance of the objects as being decorated with "figures" - either humans or animals - and "leaves". But the mediaeval term "*figura*" seems to embrace not only the meaning of human being (often sacred, or with some mystic connotation) but also : the external form of something, an illustration, heraldic arms, a mathematical cypher, an allegorical or symbolic representation and a statue (the last meaning

raising yet another problem on the difference between a "sculpture" and "statue" that need not concern us here).⁽⁶⁾ Another visitor, Jehan Thénau, accompanied Louis XII of France's ambassador, André Le Roy, in 1511-1512, to the court of Sultan Qansuh al-Ghuri (who ruled from 1501-16). On 20th March Thénau's party was installed in Cairo in a house assigned to them by the Sultan. The Frenchman's journal makes little reference to his surroundings, but he does comment on doors inlaid with ivory and ebony with the judgment "*mais l'ouvrage surmontoit toujours la matière*" (Thénau:1530, Ch. II). Benvenuto Cellini, in 1525, acquired a number of small daggers which he called "*turcheschi*" (Cellini:1891, Ch. XXXI, 64) and described as "*intagliate per virtù di ferri molti bellissimi fogliami alla turchesca, e pulitissimamente commessi d'oro*"⁽⁷⁾. Cellini was so impressed by them that he was determined to "try his hand at that kind of art" and seems to have been convinced that his own skill surpassed that of the originals.⁽⁸⁾ It is difficult to be sure exactly what Cellini meant by the description of his technique because no inlaid pieces have been identified by his hand. His use of the word "*turchesca*" to describe the ornament rather than "*all'agema*" is interesting, as is his subsequent discussion on the various types of foliate ornament: bryony, ivy and acanthus ("*ellera, vitalba, acanto*") in Lombardy, Tuscany and Rome, and arum and sunflowers ("*gichero, fiorellini di clizia*") by "Turks". "Arum" and "sunflower" might describe fleur de lys, lotus blossom (both in profile and the full flower seen from above) or the Mamluk rosette. The problems encountered here in using one medium to describe another highlight the lack of precision not only in late mediaeval and Renaissance literature but also in modern research.

The appeal of Islamic artefacts was not new. The treasuries of the great cathedrals were well endowed with textiles, ivories, and rock crystal from early periods.⁽⁹⁾ By the 15th and 16th centuries, secular Western collectors too were avidly acquiring Islamic "wonders", still predominantly textiles but also ivories, rock crystal and inlaid metalwork. Not only were the enormously rich and powerful European ruling families like the Medici (Spallanzani:

1980/2,95-116; Spallanzani:1980/1,173-94), the French kings, the Dukes of Burgundy and Berry,⁽¹⁰⁾ and the Hapsburgs accumulating Islamic artefacts, but also humanist scholars were attracted by them. The Italians Ulisse Aldrovandi, whose collection was later included in the "museum" of Ferdinando Cospi (Legati:1677), and Niccolo Gaddi (Luchinat:1980,163), to name but two, bear testimony to the growing interest in the products of the Middle East. The technical difficulties involved in their manufacture seem to have acted as a magnet in this later period to scholars as much as the aesthetic appeal of the objects themselves. One Florentine, Bernardo Vecchietti, for example, kept a miscellaneous assortment of glass vessels, porcelain and precious metal vases as well as "Turkish" daggers in the "*scrittoio*" of his villa near Florence, while in another part of the villa he kept a metal-working furnace and a lathe.⁽¹¹⁾

Section 2. The Inlay Techniques.

(A) Terminology

Dr Allan (1979,64-65) has distinguished between two types of inlay : "linear" and "spatial". He described three methods of fixing the inlay in each case, and illustrated his descriptions with the help of an unpublished report by Dr Michael Hughes of the British Museum Research Laboratory.⁽¹²⁾ Rice (1953/3,499, fig.9 (left) illustrated a method of inlaying, in use in 773/1371, similar but not identical to Allan/Hughes' Persian examples (figs.3d-e). These were taken from an inlaid brass Khurasanian table top of the late-12th to early-13th century (British Museum inv.no.1969.12-24.1) and an inlaid, high-tin bronze stem bowl, from North-West Iran or Anatolia, of the 13th century (British Museum inv.no.1969.9-24.1). The method illustrated by Rice is found on a box made for the Mamluk emir, Aydemir al-Ashrafi, presumed by him to be 'Izz al-Din Aydemir al-Ashrafi ad-Dawadar, nick-named Salam 'Alaikum. Rice argued further, on the basis of the title *kafil al-mamlaka ash-sharifa bi halab* in the inscription, that the box had been made in 1371, the only time

Aydemir was Governor of Aleppo; presumably, too, the box had been manufactured in that city (Rice:1953/3,490-492, Musée du Louvre inv. no.7438). The difference between the methods lies in the profile of the incision or indentation made by the tracer or graver, the Persian example having a vertical edge, the later Mamluk one having a wedge-shape, wider at the bottom than at the top. Rice here (1953/2,237-8) insisted that no metal was removed by the tool tracing the design. However, elsewhere (Rice:1953/3,498-9) he said that, after the designs had been traced, "the spaces which were to receive silver inlays were ... roughened and undercut", implying that metal was removed. Dr Allan (1979,64) admitted that little work had yet been done to distinguish between traced and engraved designs on Islamic bronze objects, a point made again by Dr Komaroff (1984,298,405). The term "engraving" is used in this study, then, in the same way as by Dr Komaroff, to include decoration produced both by engraving and chasing tools. Further, more precise scrutiny of the objects may modify or refine this definition.

The same imprecision is present in the description "*intagliate ... di ferri*" used by Cellini, who must have been referring to the use of a tracer or graver to produce his incision.⁽¹³⁾ His method of inlaying silver thus seems to correspond in principle to the second method of "linear" inlay described by Dr Allan (Allan: 1979, 64, fig. 3a) although Cellini seems to have used a wedge-shaped graver to produce an incision wider at the bottom than the top ("*sottosquadro*"), which is similar to that on Aydemir's box, as described by Rice. Cellini added his work was both "much finer and far more durable than the Turkish" (Bull:1956,62). Lane-Poole, interestingly, used deeper undercutting as evidence of Islamic work, pointing out that "Venetian" methods used less silver on a relief surface (1886,451-452).⁽¹⁴⁾ Unfortunately, none of Cellini's inlaid work has yet been positively identified and it is not clear if he is referring to "linear" or "spatial" decoration. Much systematic work remains to be done on Italian 15th and 16th century inlaid metal work. There is, for example, a salver in the Courtauld

Institute (inv.no.44, cat.no.176, pls 42 and 42) which perfectly fits the description of Italian design as laid down by Cellini later in the passage.⁽¹⁵⁾

The Arabic term for the inlay technique is "*kuft*". In his *Khitat*, (1858, II 105, Rice:1955/1,228-231), written c. 820/1417, Maqrizi used the root *kaf fa ta* to describe the market where inlaid objects were sold ("*suq al-kuftiyyin*"), as well as the shops in which it could be found. Rice (p.228) translated this as the action of "the working of inlays", rather than a description of the precious metal plaque itself, thus disagreeing with Dozy and Quatremère (22,n.5). The craftsman using the technique was called a "*kuf-tiyya*", and, according to Habib Zayyat (quoted by Rice, p.22, n.5) the inlay of precious metal "*takfit*". In the same extract from the *Khitat*, Maqrizi spoke of the popularity in Egypt of inlaid bronze vessels ("*awani an-nuhas*"). Rice translated this as "bronze" (229 n.1) because elsewhere Maqrizi referred to "*nuhas asfar*", that is "yellow *nuhas*", or "brass"; "copper" is not a possible translation in this context because no 14th-century inlaid copper vessels are known. Maqrizi's comment was "This kind of work (inlaid with gold and silver) was selling well in Egypt. People were very eager to buy inlaid bronzes and I have seen so many of them that their sheer quantity beggars description. There was hardly a house in Cairo and in Egypt which did not possess several inlaid bronzes. A *dakka* (a kind of "bier-shaped" platform to be carried in the bridal procession, according to Rice, 229 n.4) was an indispensable part of a bride's trousseau ... On the *dakka* was a set of bowls made of brass inlaid with silver" ("*mukaffat bi'l-fidda*"). Further on in the passage, Maqrizi commented that inlaid bronzes were now (that is, in about 1417) rare because people bought them and removed their inlay. Furthermore, he said that there remained only a few men in the market who were still able to do inlaying. It is partly on the basis of this description by Maqrizi that Dr Allan (1984,90) thought that a shortage of precious metal in the economic dearth of the earlier 15th century might explain the comparative rarity of inlaid objects surviving from the period, as we shall see.

(B) Islamic Technique

The technique of inlaying a base-metal object with precious metal did not remain constant in the Islamic world, a fact not noted by Lane-Poole, as we noted above. It is the change in technique that Dr Komaroff (1984:I, 228-230) found revealing in lamps from the Shrine Complex of Khwajah Ahmad Yasawi, in the modern town of Turkestan, which dates from the end of 799/1396-7 when Timur ordered its construction, to about 1398-9 when it was completed (181-2). The lamps are believed to date from the same period. Previously inlay in Iran had been of the type described by Dr Allan as "spatial" (1979:64-65), namely the area to be inlaid was outlined with an engraving or chasing tool and then usually slightly recessed. The edges of a thin plaque of sheet silver were rubbed into the engraved outline, to allow the precious metal to cover the recessed area, and details were then incised into the attached silver. In the lamps, Dr Komaroff found, the ground was left unrecessed within the familiar incised outline. Details were incised not into the inlay but into the ground metal, over which a very fine layer of precious metal was applied, so thin that it allowed the details to show through. This is reminiscent of the technique of inlaying gold, as opposed to silver, foil in Mamluk objects. On a bowl made for Sultan Nasir al-Din Muhammad, for example (British Museum inv.no.1851 1-4 1, Atil: 1981,88-89, no.26) silver foil was attached by burnishing into engraved grooves just inside and running parallel to the outlines of leaves and lotus petals, while gold foil was rubbed onto tooth-like indentations within the main area of the core of lotus blossoms and five petals of the rosettes. Another phenomenon was pointed out by Dr Komaroff (1984:I,299-303). In later Timurid wares, "spatial" inlay, that is the use of comparatively large areas of precious metal, went out of fashion, probably because of a shortage of silver, although Dr Komaroff thought that it was due to a preference for small scale design, for which the "linear" inlay technique is better adapted (300-301). We have already seen that a shortage of silver in Mamluk Egypt may have led to a drop in the production of inlaid objects there in the first part of the 15th century (Allan:1984).

This is discussed more fully in Section (D) of this chapter. Perhaps the fact that silver was being beaten so thin that it was possible to apply it in the technique formerly used for gold foil is further proof of the scarcity of precious metal in the 15th century. Dr Komaroff found that in the earliest dated Timurid wares of 1450s and 1460s, where a design is "coloured in" by inlay, short converging inlaid wires or slender strips of sheet silver were laid so close together that a single surface was produced by burnishing, albeit with a slightly striped appearance. In fact, this method continued to be used into the Safavid period, as can be seen on the jug in the British Museum dated Muharram 917/1511 (inv.no.1878 12-30 732). It is possible to see without a magnifying glass the short lengths of wire that were used to cover the area of a motif.⁽¹⁶⁾ What is more, this phenomenon was noted by Dr Melikian-Chirvani on the salver with the arms of the Soranzo family in the Victoria and Albert Museum.⁽¹⁷⁾ The wires must have been of a high silver content, with little if any base metal in their make-up, to allow them to be bent into the intricate curves of the decorative motifs without breaking and to allow them to be flattened by rubbing to form a single surface.⁽¹⁸⁾

It is possible, too, to distinguish between "linear" and "spatial" inlays of a precious metal with the naked eye. As we have seen, in "linear" inlay a fine silver wire or narrow strip of silver foil was attached to the base metal object as an outline round a motif. It could be fixed either by hammering it into a single groove cut by an incising tool into the surface of the object, or into a series of depressions in the surface made by a punch. Gold was occasionally used in the same way, but more commonly to highlight an area of particular interest.⁽¹⁹⁾ A pen-case in the Metropolitan Museum of Art, New York, for example,⁽²⁰⁾ features "linear" inlay to draw a series of overlapping circles and oblong medallions made from silver wire. The use of two parallel lines of punched depressions can be seen on an incense burner in the Cairo Museum of Islamic Art (inv.no.15107), where the loss of the precious metal allows its original fixing method to be seen.⁽²¹⁾ This was the method used most

frequently in Mamluk metalwork. Less frequently a single line of punched depressions was also used to hold the inlay.⁽²²⁾ Another technique was used to create the effect of inlaid wires. On the lid of a cylindrical box in Edinburgh (Royal Scottish Museums inv.no.1830 13-3, cat.no.148, pl.34), for example, it is possible to see how the base metal has been left in reserve against a recessed ground so that, once a thin layer of silver was applied, the appearance of a much thicker, and therefore more opulent, decoration was given. Although the inlay looks like a wire, or "linear" technique, in fact it is a narrow strip of "spatial" inlay. Lane-Poole too commented on this technique, as we saw above (1886/2,451), but he was mistaken in thinking it a purely "Venetian" or Western phenomenon for it is demonstrably present on an inscribed box in the Metropolitan Museum of Art (Gift of Edward C. Moore, inv.no.91.1.538, Atil:1981,104,no.36) made for al-Wathiq bi'l-Mulk al-Wali ibn Muhammad, timekeeper of the Great Mosque in Damascus, by a craftsman called Muhammad ibn 'Ali al-Hamawi sometime in the 15th century. Here, in the inscription and bordering guilloche knots, it is possible to see that silver wire was hammered into narrow ridges of base metal left standing above the main body of the box, which was gouged out with a scraper and probably once filled with a black compound. The narrow lines of base metal have a series of too thed indentations punched into them to hold the inlay. On larger areas of inlay, such as the trefoils carried by ogival, cusped medallions and the split palmettes and trefoils of the running interlaced border, silver was rubbed into toothed notches running parallel to the outline of the motifs. So here both "spatial" and "linear" inlay techniques were used together, as they were on the salvers decorated by Mahmud al-Kurdi (cat.nos.160-162, pls 7,21,22).

(C) "Veneto-Saracenic" techniques

On the objects featured in this study, the ground metal under the inlay was never recessed, but was prepared with punch marks along the outline of the design to be covered in silver or gold, as it was in

the box made by Muhammad ibn 'Ali al-Hamawi described above. Where the inlay is lost, these punchmarks have led this writer to suppose that it was once present, although it has been suggested that in some cases there never was any inlay, but that the punchmarks merely echo a past technique.⁽²³⁾ However, the additional labour involved for no apparent reason would seem to make it unlikely. The comparatively wide spacing of the punches contrasts to the single chased groove on, for example, 13th- and 14th-century Mamluk objects, visible where the inlay has been lost.⁽²⁴⁾ On a Mamluk bowl in the Metropolitan Museum of Art,⁽²⁵⁾ by comparison, the only groove visible runs round the scalloped borders of the epigraphic roundels and oval medallions, which is probably an indication that the bowl was never extensively inlaid. A tray in the Embassy of the Arab Republic of Egypt in Washington⁽²⁶⁾ similarly has no internal grooves, and was originally tinned. On an incense burner of the second half of the 13th century in Cairo,⁽²⁷⁾ a single deep cut in the narrow fillet border of the medallion shows the method by which silver wire was held in place. The technique was so successful that here almost no wire has been lost.

Larger areas to be inlaid were also prepared by incising tooth-like punch marks in the centre of the design to provide a better hold for the "spatial" inlay. The metal underlying the inlay was not recessed. In some cases these punch marks were not made at random but were deliberately placed to form a pattern that is only now visible after the inlay has been lost.⁽²⁸⁾ The silver inlay seems to have been applied in thin sheets, the edges of which were burnished into the randomly punched outlines, as in the 13th- and 14th-century examples cited above, while gold was more likely to have been applied by mercury gilding, if the Freer bucket can be accepted as the norm.⁽²⁹⁾ Here it is the inside of the bucket and the inner surface of the handle that are gilded. As this is predominantly a European technique (Theophilus:1979,113,146,148; Maryon:1971,159,262), it seems probable that the gilding was not undertaken when the

bucket was manufactured but was done later. This assumes that the bucket, which is entirely Islamic in form and decoration, was made by an Islamic master, and that only the gilding was applied in Europe.

Where the background of a "Veneto-Saracenic" object is not covered by minute arabesques or cross hatching, it is commonly roughly gouged out or chased to provide a suitable surface to hold a black compound, leaving the design in relief, as we have seen. It is noticeable that the objects of Group A, that is the group of objects I believe to have been made in Mamluk Egypt or Syria, do not have fine arabesque grounds, which are common on objects of Group B, namely those associated with the named artists, such as Mahmud al-Kurdi, Zain al-Din and others. Both have grounds scraped out apparently in preparation for a black compound filling (Atil, Chase and Jett:1985,180 detailed fig). It is more immediately apparent on objects of Group A, for the recesses are larger in area. The use of relief meant that less silver had to be used to create an effect of opulence, an important consideration at a time when silver seems to have been in short supply, as we have seen.⁽³⁰⁾ The black compound used to coat the gouged-out ground of the engraved surface background, where it still exists, varies in appearance from a shiny, enamel-like substance, to a duller, wax-like consistency. Although largely organic, in some examples (for example, cat.no.24 pl.43) the black compound has a red metallic gleam in a raking light, which would probably indicate a copper content, but whether it is possible to propose a distinctive workshop or location to explain this phenomenon, or whether it indicates a deliberate colour choice, or whether it indicates that more than one type of black compound was made - which seems probable - it is not possible at the moment to say. Often the black compound is largely lost, visible only in minute traces. It is difficult to be sure in these instances if what can be seen is indeed compound or dirt, although the marks of the chasing tool probably indicate a deliberate black inlay, just as toothed indentations probably indicate a precious metal inlay.

The imprecise nature of the data on techniques and materials, coupled with the dearth of laboratory investigation of "Veneto-Saracenic" pieces, means that a break-down of decorative motifs seems to be the only way forward at present. To test the efficacy of this method, thirty-seven of the forty-two "Timurid" ewers known to me (Appendix I), where it was possible to see their decoration in some detail, were used as a control group.⁽³¹⁾ The benefits of using this group of objects were two-fold : (a) because the decorative motifs are close in many instances to those found on the "Veneto-Saracenic" pieces; and (b) because many of them are both signed and dated. It would seem logical to expect that those objects made by one master would exhibit the same motifs or, if not the identical motifs, the same aesthetic or way at looking at the design. And indeed this proved to be the case, as can be seen in Appendix I, nos. 1-3,5-26,28-39. The same thesis holds for those signed pieces that can be attributed without hesitation to Timurid or Safavid Iran and, by extension, to other ewers from the same area. Where the approach is significantly different, it seems logical to assume that the ewer is either different in date or place of manufacture. The results of this analysis are discussed in more detail in Section (3)(E). But, despite the apparent neatness of the argument, the method is not fool-proof and must be accepted with caution. Motifs travelled with ease, either through manuscript illumination,⁽³³⁾ or on the small, domestic objects themselves or in pattern books.⁽³⁴⁾

In the main, interest in the inlaid objects from Khurasan, the Jazira, Egypt and Syria has focussed on the inscriptions and the figural decoration. Because the "Veneto-Saracenic" group have neither, it is the "secondary" elements of the design that are of interest here, the almost automatic "fillers" used by the artists to cover the areas between the main motifs. The primary elements of the "Veneto-Saracenic" repertoire have therefore been isolated and comparisons sought. The origins are frequently too obscure to be found. The individual words of the language, as it were, are hybrid. But the grammar and syntax, to extend the analogy, are illuminating. While a particular motif may travel from one area or

one medium to another, from architectural monumentality to manuscript to precious metal, ceramic or inlaid base metal, it is the way in which that motif is used, the subconscious aesthetic of the craftsman in his own environment, that is the key.

This approach is not new. It was first used by Alois Riegl to counteract in part an earlier thesis of W.H. Goodyear, which he published in 1891 in a book called The Grammar of the Lotus. Goodyear had explained certain continuities in the design of lotus and palmette by a common symbolism. Riegl, who was a Keeper in the Textile Department of the Österreichische Museum für Kunst und Industrie in Vienna, proposed that, on the contrary, the constancy in design could be best explained by a concept he called *Kunstwollen*. He published his theories in a seminal book entitled Stilfragen in 1893. *Kunstwollen* cannot readily be translated but basically it refers to an artist's intention, in part subconscious, in the production of a work. The idea has become outdated, but still the recognition of a continuity in form is a primary concern in any discussion on art. The necessity to break down a form or design into its basic components is as vital to an archaeologist as it is to an art historian. The elements of the design, the syntax, as it were, into which new words are introduced, remain the most constant part of any art form. An artist may consciously experiment in his work but the basic approach inherent in the context in which that artist was trained is, I believe, absorbed as unconsciously as the air he breathed. Professor Sir Ernst Gombrich's work in this respect is as seminal today as Riegl's was at the end of the last century. His belief that craftsmen will always use concepts inherited from their predecessors is expressed in many of his books. In The Sense of Order (1979,210) he wrote "What these observations confirm is the psychological fact that designers will rather modify an existing motif than invent one from scratch". It is my thesis in this study that not only the motifs but the approach to them was determined by the inherited aesthetic of the craftsman. This means that a man who "saw" a design as starting at the circumference of a circle and developing towards the centre would not readily read a design in any

other way, even if he were copying one from a different context. And the same would hold for a man whose background led him to "see" a design as fanning out from the centre.

These two fundamentally different approaches are found in the "Veneto-Saracenic" metalwork. The recognition has been a determining factor in dividing the objects into groups. Group A, those that show the characteristics of metalwork previously proved to be Mamluk, are constantly designed from the circumference inwards, in the same direction as the circular inscriptions from the time of Sultan Nasir al-Din Muhammad ibn Qala'un. Either the motifs are arranged to finish pointing towards the centre, or they appear in concentric bands around a central medallion. In Group B, on the other hand, which includes the objects signed by the masters Mahmud al-Kurdi and Zain al-Din, the motifs are arranged in the opposite direction. They start in the centre and fan outwards until cut off by the rim of the object. Objects in Group C, which adhere to no specific rule of proportion between motifs or their arrangement, which would seem to indicate either a different aesthetic or the misunderstanding of a model, are therefore assigned to European masters. The fundamental disorder in their design is an indication, I believe, that they are the work of craftsmen who, though able to copy the superficial appearance of the motifs, did not understand the underlying structure of the way they were arranged in Islamic workshops; or, in other words, they are the work of craftsmen working outside their own aesthetic. The next chapter of the present study is concerned, therefore, with a break-down of the designs found on "Veneto-Saracenic" objects, as well as their shape.

To sum up, "spatial" inlay was the term used by Dr Allan (1979) to describe an "overlay" of thin sheet silver or gold fixed over a larger area, the motif highlighted, as it were, by the precious metal rather than merely outlined by it. Dr Komaroff adopted the same term in her unpublished doctoral thesis (1984). The precious metal is attached to the area to be decorated by different methods, as described above. "Linear" inlay, on the other hand, was used by Dr

Allan and Dr Komaroff to describe the technique of delineating a motif by a thin silver wire, hammered into a groove or series of punched indentations. These terms are used in the same way in the present study.

Section 3 : History of the inlay technique

(A) Khurasan

The rise in popularity of inlay as a means of decorating base metal objects for wealthy patrons in Eastern Iran, and more particularly in Khurasan, dates to the mid-12th century.⁽³⁵⁾ While inlay as a technique was known in the Middle East long before the 12th century, there was a hiatus in its use until the great upsurge in the area which is mapped by four key dated and signed pieces : (1) a bronze *qalamdan* (pen-case) in the State Hermitage Museum, Leningrad dated 1148 published by Giuzalian (1968); (2) a bucket in the State Hermitage Museum, Leningrad, inv.no.CA-12687, dated 1163, commonly called "The Bobrinsky Kettle", published by Ettinghausen (1943); (3) a ewer dated 1181 in the State Museum of Georgia, Tbilisi, published by Giuzalian ("*Bronzovi kuvshin 1182g.*", *Pamiatniki Epochi Rustavelli*, Leningrad 1938, 227-36); (4) a pen-case dated 1210 in the Freer Gallery of Art, Washington, 36.7, most recently published by Dr Atil, in Atil, Chase, Jett:1985, 102-110, no.14, where photomicrographs show the stepped contour of the inlaid silver lines and inlaid sections (109). The inlay on the pieces from the later-12th and first part of the 13th century, was of silver and copper, or either one of these. Details like human features, birds' feathers and animal limbs were incised into the inlay, while the ground was filled with a black compound.⁽³⁶⁾ The Khurasanian wares seem to have been exported for not only was a collection of objects found in 1908 in Hamadan (Harari:1964-7, Vol.III 2496-7, Vol.IV pls 1332, 1334, 1341, 1342A) but also two objects exist whose owners had the *nisba* al-tabrizi. It is possible, even likely, that these men were not residents of their own city when they acquired the objects. A merchant in Tabriz would not be defined by the epithet "of

Tabriz",⁽³⁷⁾ but the presence of Khurasanian objects in Hamadan would support the supposition that the objects were appreciated outside the immediate area of their manufacture⁽³⁸⁾. The Mongol invasion in 1220-21 seems to have disrupted the metalworking industry in Khurasan, and especially in the capital Herat, for no dated comparable object is known after 1210, the date of the pence in the Freer, inv.no.36.7, mentioned above. Indeed, it seems to have been only with Timur and his successors that the production of luxury, inlaid metalwork returned to Eastern Iran, although southern Iran had a flourishing school of inlaid metalwork.⁽³⁹⁾

(B) The Jazira

At roughly the same time as the Mongols invaded Khurasan (1220-1221), there is evidence of a metalworking centre in the Jazira, the area between the Tigris and Euphrates river that now includes much of modern Iraq, part of Northern Syria and Eastern Turkey, commonly known in the past as Northwest Mesopotamia. According to a 13th century geographer from Muslim Spain, Abu Sa'id, inlaid brass vessels ("*awani al-nuhas al-muta'am*") from the capital Mosul were "exported (and presented) to rulers". Abu Sa'id was travelling in Syria, Mesopotamia and Iraq in 648/1250.⁽⁴⁰⁾ But his reference to a metalworking industry in the area is a rare one and, it is worth mentioning, is followed immediately by a reference to the production of "silken garments" ("*muharrar*", a Spanish-Arabic term) for which the area was also famous (Rice:1957/3,n.10). Rice also drew attention in his article to an entry in the chronicle of Sibt ibn al-Jawzi (who died in 654/1257) of the overthrow of the ruler of Mosul, Badr al-Din Lu'lu, in 1237. Among the possessions that fell into the hands of his Khwarazmian conquerors were an inlaid pen-case ("*al-dawat al-mufaddadah*"), a basin and a ewer (1957/3,284 and n.12). None of these are identifiable at present, if, indeed, they have survived. The key evidence for the style of objects being made at Mosul at this time are a ewer in the British Museum that states it was made at Mosul in 1232⁽⁴¹⁾ and five pieces which, although un-

signed and undated, bear the titles and name of the same ruler, Badr al-Din Lu'lu, who had a pence, ewer and basin of such quality that they were worth singling out as noteworthy losses among his looted treasure. Only the pence was described as "silver-inlaid" ("*al-dawat al-mufaddadah*") and it was reported by Sibṭ ibn al-Jawzī to be worth 200 dirhams, though he added that it fetched only 5 dirhams on the market. The basin and ewer, however, together brought 20 dirhams, so they too must have been of high quality, unless their practical nature made them more marketable at the time (Rice:1957/3, 284). In any case, the prices for such noteworthy objects were ridiculously low. They are presumed to have been made in Mosul, Badr al-Din Lu'lu's capital. As the titles on the five pieces include the honorific "*al-Malik al-Rahim*", the objects must have been made after Badr al-Din's investiture as an independent prince by al-Mustansir in 631/1233, and of course before his death in 659/1262.⁽⁴²⁾ Another named craftsman is thought to have been working in Mosul a few years earlier. Isma'il ibn Ward "decorated" ("*naqqasha*") a box in 1220 (Rice:1953/1,1,61-65). In 1249 he completed a manuscript and only three months later it is recorded as being in Mosul, making it likely his workshop was in the capital (James:1980). Although nearly thirty years separate the two objects and although Rice postulated that another Mawsili metalworker, Ahmad al-Dhaki, moved from Amid (Diyar Bakr) where he had been working for the Artuqid ruler, al-Malik al-Mas'ud, to Syria in 1232, after the fall of the Artuqids (Rice:1957/3,320), it is assumed that Isma'il ibn Ward was indeed a long-term resident of the Jaziran capital and, by extension, so was his master, Ibrahim ibn Mawaliya al-Mawsili, who signed an undated ewer now in the Musée du Louvre, Paris.⁽⁴³⁾

The relevance of the Mosul style to this study will be looked at in more detail below. There is some debate as to whether the art of inlaying with precious metal was brought into the Jazira by Persian craftsmen fleeing the Mongol advance in Khurasan⁽⁴⁴⁾ or whether there was already a Jaziran metalwork centre skilled in the art of inlaying before the 1220s⁽⁴⁵⁾. What is indisputable is that by 657/1258, four years before the Mongols sacked Mosul in turn in 660/1262, a crafts-

man with the *nisba* al-Mawsili was working in Damascus. This information is conveniently contained in the inscriptions on a ewer in the Musée du Louvre, signed by Husain ibn Muhammad al-Mawsili (Rice:1957/3,326,App.16, pl.13 c-d). Rice listed four other pieces that were made by Mawsili craftsmen outside the Jazira, all in Egypt, dating from 668/1270 to 691-721/1297-1321.⁽⁴⁵⁾ And he also catalogued nineteen other objects made by fourteen different craftsmen, all with the *nisba* al-Mawsili but whose workshop location is not certain, and these too will prove of to be of stylistic interest.⁽⁴⁷⁾

Before looking at the metalwork of Mamluk Egypt and Syria, one other example of a Mawsili master working in the Mamluk empire must be added to Rice's list. A candlestick with the name of Sultan Lajin (696-98/1296-98) in the Museum of Islamic Art in Cairo was published by Wiet in 1932 (7-8,pl.XXX,inv.no.128). He had not noticed a craftsman's signature and date on the base of the neck. The inscription was published in 1959 by Dr 'Abd al-Rahman Fahmy Muhammad and again by Dr Allan in 1986, who read it as "Made by 'Ali ibn Kasirat al-Mawsili. The year 697 (1297). In Damascus the God-protected. May God perpetuate the power of its ruler" (Allan:1986, 49-50). On the basis of this candlestick, and Maqrizi's report that in 692/1293 Sultan al-Malik al-Ashraf Khalil ibn Qala'un ordered his vizir to write to Damascus for one hundred copper candlesticks with the titles of the sultan, and fifty gold and fifty silver candlesticks, Dr Allan assigned a group of candlesticks of the same type to Damascus (50). In form and decoration the group is close to 'Ali ibn Kasirat's example except for one detail: all the other objects, which are in (1) the Walters Art Gallery, Baltimore (inv.no. 5 4.459); (2) the Museum of Islamic Art, Cairo (inv.no.4463, Atil: 1981,64-6, nos 15,16); (3) the Museum of Islamic Art (inv.no.7949, Wiet:1932 pl.XXVIII); and (4) the Museum of Islamic Art, Cairo (inv. no.3982, Wiet:1932 pl.XXXII) have an engraved chevron "feather" pattern (Appendix fig.T5b TG5) on the projecting bands or ribs that circle the base, while the Damascus candlestick does not. Although the detail appears minor, it may be significant in view of the fact that the same "feather" pattern appears on the Muhammad ibn Hasan al-

Mawsili candlestick made "*bi-misr*" (in Cairo or Egypt) in 668/1269, although here the projecting ribs are undecorated, as on the Damascus example. Yet Aga-Oglu (1945/1,41) saw this particular "feather" chevron as a "characteristic ornamental motif of North Mesopotamian and Syrian metals", while admitting it occurred on a few Iranian pieces. The comparison underlines the problem of determining a place of manufacture on common decorative detail alone and may undermine the argument of assigning a specific Damascene provenance to the group.

(C) Anatolia

From the second half of the 13th century, when objects bearing the craftsmens' *nisba* al-Mawsili began to appear in Cairo and Damascus, as we have seen, other influences too start to be apparent which have a bearing on the 15th and 16th century objects that are the subject of this study. Dr Allan attributed the source of these to Siirt and Dr Komaroff also, following Professor Soucek, suspected it might be in Anatolia, a hypothesis put forward independently by Dr Melikian-Chirvani and summarised in an appendix to his catalogue of Iranian metalwork in the Victoria and Albert Museum (Allan:1978, 1982,58-61; Komaroff:1984,129,n.53; Soucek:1978,39-43; nos. 69-70; Melikian-Chirvani:1982,356-357). In 1972, Dr Atil followed Rice in attributing the group to Azerbaijan but in 1985 (152,fig.55), she labelled the candlestick in the Ann Arbor, University of Michigan Museum of Art (inv.no.1965/1.182) as being made in "Turkey, late-13th century". There seems to be a general agreement that the alloy and technique of casting unite the group to a production area somewhere within the confines of modern Turkey, or at most Northern Iraq or Syria, despite the wide discrepancies in the decorative motifs used. It is worth drawing attention here to the very different motifs used by the craftsmen, who yet adhered to the constraints of shape and aesthetic approach that allow a common factor to be recognised. The background of the candlesticks is filled with arabesques. Where figural scenes were featured, the subjects are set within roundels

(Victoria and Albert 548-1899, M.35-1923, Michigan 1965/1.183) or cusped medallions (Victoria and Albert M.711-1910, Michigan 1956/1,182), the outlines of both being drawn in silver wire fillets. In Victoria and Albert 548-1899 (Melikian-Chirvani:1982, pl.171) roundels are filled with intricate arabesques that are based on the "dart and shield" alternation found on many "Veneto-Saracenic" objects of Group A, which I have argued in Chapter 1 should be re-assigned to Mamluk Syria or Egypt (figs 36-42). On the same candlestick "darts" made of split palmettes fill the triangular interstices between the roundels.

There is another object made in Anatolia that is of interest to the present study. This is an unusual repoussé mosque lamp, dated 679/1280-1, and signed by 'Ali ibn Muhammad al-Nisibini "in the city of Konya" in the Etnografiya Müzesi, Ankara (Inv.no.7591; Rice: 1955/1,207-212,pls.1-VII,my figs 63-4). It is bronze and has no inlay but was originally gilt, for traces are still visible, according to Rice. The interest to us lies in the style of the intricate repoussé arabesques. Pl.II of Rice's article shows the lamp from below, an angle which reveals tulip-shaped compartments with spade and heart motifs formed from split palmettes. Each larger leaf shape is made up of smaller leaves. From above (pl.III of the article) the divisions transform themselves into ogival arches, the intermediary motifs being lime-shaped with trefoils at the apex. Once again, these limes are made up of split palmettes, each leaf comprising smaller internal leaves (figs 63-4). Rice himself remarked on this detail, commenting "he used the larger leaves as foils for smaller elements" (210). Because of the different technique it is less obvious than in linear inlay but, as will be seen, the same way of drawing both an ogival arch and a leaf is found in objects from the workshop of Zain al-Din (cat.nos.61-2,244). I do not know of this specific detail on any piece of metalwork from Egypt or Persia. However, it does appear on a standard or pole head of engraved steel, made in about 1500, in the New York Metropolitan Museum of Art, (Bequest of George C. Stone, inv.no.36.25.1961, Atil:1981,116,no.43; my fig.65). The standard is inscribed "One of the things made for the

noble excellency al-Sayfi Tarabay (officer) of al-Ashraf (the) secretary, the noble office (sic), in Syria the protected and may his victory be glorious." The leaves here emerge from the border and delineate the cusped space within which the epigraphic cartouches and cruciform central medallion are held. The use of half-palmettes in this way is also found in the work of Zain al-Din (cat.no.244,fig.61, pl.46).

(D) Egypt and Syria

The next areas relevant to this study are Mamluk Egypt and Syria. No systematic history of their metalwork has yet been written, although individual objects have received detailed attention. The story begins, it seems, with the Jazira. Whether or not there was an indigenous metalworking industry in the area before the supposed influx of craftsmen from Khurasan (see above), from the surviving evidence it appears that a school of metalworkers associated with the capital, Mosul, brought the fashion for inlaid brass south into Syria and Egypt. We have already seen that by 657/1259 Husain ibn Muhammad al-Mawsili was decorating a ewer (now in the Louvre) for the Ayyubid al-Malik al-Nasir Yusuf in Damascus; and eleven years later, in 668/1270, a candlestick, still in Cairo, survives that states it was made "*bi-misr*" (in Old Cairo, Cairo or Egypt) by another Mawsili artist, Muhammad ibn Hasan. It is worth noting that the basis for the motifs associated with later Mamluk metalwork is already present in the repertoire of this candlestick: knotted "kufic", "Y" interlace, swastika roundels, undulating floral scroll, chevron border, and friezes of running animals.⁽⁴⁸⁾ The ewer features somewhat different motifs, the main band of non-epigraphic decoration being a series of polylobed roundels filled with arabesques featured against a minute "curled" ground. These medallions stand out against a plain background while triangular floral knots issue out of narrow bands of running animal friezes above and below it to fill the interstices between them.⁽⁴⁹⁾ The form of the arabesques and the knots will be discussed below.

The arrangement of the space to be decorated in these early pieces is also familiar from Mosul : a horizontal division featuring a wide central band, with large roundels cutting the band into alternating circles and concave panels, connected to narrow borders above and below by fillet frames. The roundels, which are either surrounded by a plain circular fillet or by cusps (both are featured on the Cairo candlestick inv.no.1657, the Louvre ewer having cusps) have as their decoration either familiar figures such as musicians,⁽⁵⁰⁾ horsemen,⁽⁵¹⁾ hunters,⁽⁵²⁾ or astrological figures. These seem to be particularly associated with candlesticks, appropriately enough.⁽⁵³⁾ It is noticeable that usually the figures on these early objects are contained within roundels.

The exception that proves the rule, as it were, is the "D'Arenberg Basin" in the Freer Gallery (inv.no.55.10, Atil, Chase, and Jett:1985,137-147, no.18) made for Sultan Najm al-Din Ayyub of c.1247 which has figures not only contained within cusped roundels⁽⁵⁴⁾ but also independent polo-players in concave medallions formed between the ends of the cusped roundels, which are filled with a "*waq-waq*" arabesque.⁽⁵⁵⁾ On the inside of the basin there is a further series of thirty-nine independent figures. These are interpreted as Christian saints. They stand within an ogival arcade, separated from each other by slender columns. The most interesting aspect of the basin for this study is the band of knotted or plaited kufic in the top register on the outside of the basin between the Christian scenes, the elevation of the animated arabesque motif in the cusped medallions of the main register to a major theme, and an elaborate band of arabesque interlace at the bottom of the bowl running under a narrow animal frieze (Atil, Chase, and Jett: 1985,137, detail 140). As a general rule, it is true to say, however, that the 13th century Ayyubid and Mamluk Egyptian and Syrian objects (which at the moment cannot be further separated into more precisely located workshops) feature figures in some sort of frame, bands of epigraphy (often knotted or plaited, and occasionally human-

headed)⁽⁵⁶⁾ and animal friezes with borders of arabesques or vegetal scrolls. The non-figural motifs from all these early objects will be looked at in detail below.

The advent of inlay in Mamluk Egypt and Syria heralded a blossoming of the art that, in my opinion, has never been equalled. The high point is usually taken to be the work at the turn of the 13th/14th centuries, exemplified by objects decorated by Muhammad ibn al-Zain, who excelled in wide bands of humans and animals. The figures are now much more naturalistic than in previous periods; they fill both the concave-sided panels between the roundels and the roundels themselves. The most remarkable is the bowl known as the "Baptistère of S. Louis" in the Louvre (Inv.no.LP 16, the bequest of Marquet de Vasselot). Here the four roundels are filled with men on horseback, while the royal court, both military and civilian, fill wide panels between them. Another small basin from the same bequest is also in the Louvre (Inv.no. MAO 331). It is signed by ibn al-Zain, and the style is so similar to the larger "Baptistère" that he must be recognised as the same man as Muhammad ibn al-Zain.⁽⁵⁷⁾ Here, the figures in the three roundels are seated on thrones, each with a cup in his right hand and his left hand on his hip. Again, the figures in the intermediary panels are courtiers, officers, entertainers and hunters. The figural style is not relevant here and has been fully examined before. However, there are elements of the overall design which have a bearing on the objects that are the main concern of this study. These are the subsidiary motifs : a border of "tassels" (or lancet leaves) that runs round the steep change in direction of the walls of the small bowl (Atil:1981, no. 20); a similar border of pointed leaves that rise from an interlocking frieze of lotus bud scrolls above the band of running animals at the top of the decorated area on the outside of the Baptistère; and the background decoration of similar scrolling arabesques inhabited by birds and small animals. Birds also decorate the flaring rim of the large bowl. They have been reduced to a bud-like form whose ambiguity will be examined below (fig.17a-c, Ch.3 Part II, Section 3B; Atil:1981,76-77,79, no.21). A detail of the last motif

is featured on the cover of the catalogue. Around the borders of the roundels now containing the arms of France is another noteworthy feature : an undulating stem with petals or leaves that are striated, have a double arc incised across their base and split into a trefoil at the top (fig.17a). These too will be discussed below.

It is difficult to be precise about the dates of objects that are not dedicated to an individual but at about the same time that the human figures star so spectacularly in the ibn al-Zain bowls, epigraphy gradually grows in size and importance, until it eventually wins the battle, forcing the figures that do continue to appear for a period back into their confining roundels. For example, a bowl made for an anonymous patron (Victoria and Albert Museum inv.no.740-1898, Atil:1981,69 no.18) has minor figures on the inside of the bowl only. The details of the figures correspond to those on the bowls by ibn al-Zain but the emphasis is different. Here, although two groups of three figures do appear independently in concave panels that run between roundels, on a band of decoration that circles the upper part of the out-turned walls, the majority of the figures play a subsidiary role to arabesques and latticework lozenges. Roundels contain cross-legged figures holding a crescent, surrounded by interlacing geometric designs (to be discussed below), or they feature horsemen. Two other areas in this border have human figures: a form of animated script fills two panels on the inside rim. The letters begin and end with a human or animal head, but otherwise remain independent of the animals and birds that inhabit them. In this the script differs from the more usual animated calligraphy, where the figures themselves form the individual letters, as, for example, on the neck of the candlestick made for Zain al-Din Kitbugha.⁽⁵⁸⁾ The bottom of the bowl (Atil:1981,70-71) has a central geometric "sunburst", six of the "rays" formed by the intersecting semicircles being filled with a geometric motif, inlaid with gold, that looks like a series of interlocked "Z"s. In fact, the motif is based on a series of interlocking hexagons.⁽⁵⁹⁾ The intervening "rays" are filled with stems carrying lotus buds. Both these motifs seem to have solar associations, a possibility that is discussed in more

detail in Ch.3 Part II, Section 3B. Paired ducks fill the smaller sections formed by the interlace in the outer area of the circle. A wide border, which surrounds the central disc, is also subdivided by interlocking arcs into a network of lozenges, that echo the much smaller version on the walls. Where the sections cross, a small rhomb forms a knot around the woven strands of the net. Immediately around the central disc is a narrow cusped band which is filled with the same geometric interlace of "Z"s that appears in the central roundel. The twelve "rays" emanating from this band have alternate paired birds and arabesque interlace, with a small knot where they join. Twelve cross-legged figures, either musicians or drinkers, fill the next segments. A small roundel with the geometric "Z" interlace, surrounded by arabesques, fills the surrounding concentric area of segments, and finally a series of paired addorsed birds adorn the outermost segments. Round this area, completing the design which fills the whole of the bottom of the bowl, is a border of lotus petal "sun-rays".⁽⁶⁰⁾ Despite the loss of inlay, the design is spectacular not so much for its figures as for its lucid geometric subdivisions and use of abstract motifs. Although epigraphy does not play a major role on the interior of the bowl, on the outside an inscriptional band, which is broken by small roundels filled with "Z" interlace, runs round the waist of the bowl, with the only other decoration a series of counter-change arabesques against an unadorned ground.

The predominance of flying ducks in the metalwork of this period ⁽⁶¹⁾ led Lane-Poole in 1886 to see a reference to Qala'un's name (1866/1,14). Another feature of metalwork of this period illustrated admirably by a ewer in Cairo (Museum of Islamic Art, inv.no. 15089), which states it was made for "the honourable excellency, the sublime master, the great amir, the defender (of the faith)"⁽⁶²⁾ is the fashion for large lotus blossoms. The naturalistic blooms are associated with an influence from China, in particular Chinese blue and white porcelain. The lotus on the ewer have fat paired petals that enclose a central tear-drop and are topped by a trio of small petal-tips from which issue two buds on short stems. The fat petals

either remain, as it were, (a) addorsed (see, for example, figs 51a and d) or (b) they cross in a scissor-like arrangement (fig.51c). The two forms alternate on the concave part of the ewer's upper neck and appear one above the other in the interstices between the roundels on its body. In form (b) of the lotus, to either side of the crossed main petals, fan-like subsidiary petals emerge. Where the inlay is not lost (Atil:1981,72, on the concave neck), parallel lines can be seen incised into the silver. Similar lotus blossoms and striated trefoils appear on a bowl with a flaring rim made for Sultan Nasir al-Din Muhammad (reigned 1293-4, 1299-1309, 1310-41), probably in the second quarter of the fourteenth century (British Museum inv. no.51 1-4 1, Atil:1981,88-91, no.26). Six lotus blossoms surround a tripartite blazon roundel with the words "Glory to our Lord the Sultan" ("*'izz li-mawlana al-sultan*") across the central field. The striated trefoils appear not only in the roundels, but also on an undulating stem as a narrow border enclosing the wide inscriptional band. The other feature of the large roundels worth noting is that between the six lotus blossoms appear six rosettes, each with five petals round a central disc. From the delicate toothed internal punch-marks, which also appear in the trefoil centre of each lotus, and which differ from the deep incisions into which the silver foil was fixed, it is probable that the rosettes were once inlaid with gold. Similar rosettes and lotus blossoms appear on the lid of a Qur'an box in Cairo, which also shares the undulating stem border with striated trefoils, and on a bowl in Modena.⁽⁶³⁾

But without doubt the main impact of the bowl and the Qur'an box, as well as the bowl, which are all thought to date from the same period (although the Qur'an box came from the Mosque of Sultan Qansuh al-Ghuri, built in 1504), lies in the majestic *thuluth* script. The elevation of inscriptions to the main decorative feature is the most important development in the metalwork of Nasir al-Din Muhammad. On both bowls and box, the *thuluth* inscriptions fill the walls (on the British Museum piece both inside and out). In the centre of the lid of the Qur'an box, there is another form of inscription favoured by this Sultan : a "radiating sun-burst". On the box, whose function

was to hold the Holy Book, the *hastae* converge on a small roundel with a central stud. But on a candlestick in Cairo, as on an incense burner in the Nuhad es-Said collection, the *hastae* converge on a central roundel with either the sultan's epithet ("*al-Malik al-Nasir*") or with salutations ("*'izz li-mawlana al-sultan*"). The epigraphic roundel thus takes on the appearance of a sun disc sending forth rays of light, becoming, in effect, not only calligraphic but also representational,⁽⁶⁴⁾ although in point of fact the "rays" start at the outer circumference and converge on the central disc rather than emanating from it.

Large-scale *thuluth* inscriptions continued to play a major role in the decoration of metalwork made after the reign of Sultan Nasir al-Din Muhammad. They can be seen, for example, on a bowl with flaring walls made for a Mamluk amir called Tabtaq (or Toqto), an officer of a sultan with the titles al-Malik al-Ashraf, probably to be identified as Sultan Kujuk (1341-42).⁽⁶⁵⁾ A ewer for the same officer, found together with the bowl at Qus, has equally large-scale epigraphy on its shoulder.⁽⁶⁶⁾ Another ewer made for al-Malik al-Nasir Ahmad, who died in 1342, has an even larger-scale inscription on its body. It also has lotus blossoms and a border of trelliswork lozenges.⁽⁶⁷⁾ Nor did the fashion for large-scale inscriptions die out completely in the following period, despite fundamental changes in the metalworking industry.

For the great achievements of the craftsmen of al-Malik al-Nasir Muhammad were not to continue for long. Dr Allan (1984,85) suggested that the decline in the Mamluk metalworking industry apparent from the middle of the 14th century was one of quantity rather than quality. He pointed to a number of inlaid objects in support of his statement, including, among others, a tray with the name of al-Malik al-Mansur;⁽⁶⁸⁾ an inlaid ewer with the name of the Rasulid Sultan of Yemen, al-Malik al-Afdal Dirgham al-Din al-'Abbas (1363-77),⁽⁶⁹⁾ which continues the fashion for a large-scale *thuluth* inscription on the shoulder; a box of Aydemur al-Ashrafi, governor of Aleppo in 1371-72;⁽⁷⁰⁾ and a number of objects probably made during the reigns

of al-Ashraf Sha'ban (1363-76) and al-Mansur 'Ali (1376-82). One of these, a bowl in the Bibliothèque Nationale in Paris⁽⁷¹⁾, has a European coat of arms.

Dr Allan pointed out that, with the accession of Barquq in 1382, the number of objects that survive suddenly drops. Indeed, he was able to list only ten pieces altogether, of which only two were inlaid with silver : one, a bronze key from the Ka'ba dated 795-1393,⁽⁷²⁾ the other, a fragment, perhaps of a mosque lamp, sold in Paris in 1981.⁽⁷³⁾ Of the others, two are of iron inlaid with gold,⁽⁷⁴⁾ and the rest of beaten copper or brass.⁽⁷⁵⁾ Dr Allan thought that the stippling on the beaten sheet-metal objects is so shallow and the absence of precious metal so complete, that they never were, in fact, inlaid, (1984,86). Whether this was a deliberate deception on the part of the maker to add an aura of traditional luxury, or merely a continuation of a familiar preparatory technique, is not clear. He underlined the comparative paucity of metal objects by pointing out that in door fittings too less metal was used from the 1380s until, roughly, the accession of Sultan Qa'itbay in 1468 (86-89).⁽⁷⁶⁾ Dr Allan pointed out that the literary sources tell the same story of a general drop in standards. Maqrizi's description of the "good old days" when people had spurs of silver or gold⁽⁷⁷⁾ contrasted with his account of the practice in the Cairo of his day where inlay was being scraped out of metalwork to be sold.⁽⁷⁸⁾ What Dr Allan did not bring out in this article, though he made the point later, is that, whereas writers of the earlier period⁽⁷⁹⁾ were describing the metalworking industry in Damascus, Maqrizi was reporting on the current state of affairs in Cairo. The collapse of the economy, indicated by a steep rise in inflation, which followed a series of outbreaks of the plague,⁽⁸⁰⁾ continuous war between rival Mamluk factions, as well as a serious shortage of metal, particularly silver and copper,⁽⁸¹⁾ were all explained by Dr Allan as reasons for the collapse in the metalworking industry in Egypt. Timur's cynical, systematic milking of Damascus, to judge by the eyewitness account by de Mignanelli,⁽⁸²⁾ who returned there in the autumn of 1402 after Timur had left, would have seemed to

preclude the possibility of any continuing metalworking industry in the Syrian capital either.⁽⁸³⁾ Aleppo apparently fared a little better, although it too fell to Timur in 1400. Although the Mongols never reached Egypt, Sultan Faraj's ignominious defeat outside the walls of Damascus and the subsequent losses on his way back to Cairo (Fischel:1956,214-217) must have seriously undermined not only the economy but also the morale of the Circassian Mamluks. However, a somewhat different view of the economic situation is given by Sultan Faraj's conduct. During his second reign in 1409-10, on one of his frequent visits to Jerusalem, he was reported as having distributed large sums of gold and silver in alms.⁽⁸⁴⁾ Indeed, in a subsequent study, Dr Allan revised his view on the lasting effect of Timur's conquest on the Damascene economy, as we saw in Chapter 1 (Allan: 1986,59-60).

But, for all the undubitable turmoil in Egypt - political, social and economic - there is evidence that the metalworking industry was to revive before the end of the century. The reason for the sudden increase in quality objects from the reign of Sultan Qa'itbay (1468-1496) is not completely clear, although Dr Newhall's recent overall analysis (1987) of the sultan's patronage has revealed a fascinating and complex figure within the social and political context of his age. Yet, despite the splendour of the designs of the metalwork, the use of silver and gold inlay was not as widespread as in the 14th century, to judge from the pieces that have been published so far. Wiet⁽⁸⁵⁾ listed twenty-four objects in the Sultan's name, of which Dr Newhall was able to locate fourteen for discussion (Newhall:1987,274). Among them are five candlesticks donated by the Sultan to the Mosque of Medina in 887/1482.⁽⁸⁶⁾ Neither of the two candlesticks in the Cairo Museum of Islamic Art are inlaid with precious metal but for their impact rely instead on the contrast between the polished and engraved brass against a ground filled with a black compound.⁽⁸⁷⁾ The result is spectacular. The inscriptions have pincer-like *hastae* that are a hall-mark of Qa'itbay's metal objects, and which add elegance and balance to the candlesticks' design. The pincer tops are reminiscent of the

crossed petals of the lotus blossoms discussed above, and which will be studied again in Chapter 3 Part II, Section 3. In the same way, two lampstands, also in the Museum of Islamic Art, depend for their effect on the colour contrast of black compound and yellow brass.⁽⁸⁸⁾ The first of these, inv.no.383, also came from a mosque, that of Asal-Bay at Madinat al-Fayyum, founded in 1499 (van Berchem:CIA,Egypt I, 556, Wiet:1932,33) and it may be that for religious reasons precious metal was deliberately omitted from the decoration of objects intended for a religious institution. After all, only a small amount of precious metal, as little as, say, five one-dinar coins, would be enough for the inlay of a candlestick. That the surviving royal pieces are largely devoid of gold and silver would seem to indicate that another reason than a precious metal famine lay behind the exclusion of inlay. This is perhaps borne out by one of the objects made for Qa'itbay's wife: a ewer in the Victoria and Albert Museum, which is inlaid with silver (Rice:1953/3,496,pl.VI). However, another basin for the same lady, previously in the Harari Collection (Rice:1952,574-5,pl.11) appears to be only engraved, which would support the alternative idea of the lack of inlay being due to economic, rather than religious, restraints. Of the other objects in the name of Qa'itbay listed by Wiet only one candlestick is described by him as being inlaid with silver.⁽⁸⁹⁾

This evidence is not conclusive because Wiet did not always state the technical details of an object; he did not, for example, say that Appendix no.365 in the "Treasury of the Sultans, Constantinople", (presumably to be identified as the basin in the Türk ve Islam Eserleri Müzesi, previously in the Cinili Köşk; Glück and Diez:1925,451) is richly inlaid with silver and gold. Dr Melikian-Chirvani (1969/1,99) listed a further seven objects of the period, only two of which are what he described as *niellés d'argent*. One of these is a basin in the Victoria and Albert Museum (124-126, pls.26-28, inv.no.1325-1856). It has twenty-four facets and a repoussé, counter-change, trilobate design on the base (my fig.73b), which is discussed below in Chapter 3 Part II, Section 10. Each inscription is carried across three facets of the walls in oblong

cartouches, whose ends finish in a cusped ogee. To each side of the epigraphic cartouches are panels of interlacing stems bearing trefoils and split palmettes, which are of interest to this study. The other inlaid object published by Dr Melikian-Chirvani here is in a private collection (127-131, pls.29-33, MC.1968-25). Again elements of its design are found on the pieces studied here, in particular an intricate geometric interlace motif on the base (1969/1,pl.32) of which Dr Melikian-Chirvani (129) said "*le motif d'entrelacs continus est inconnu des bronziers et paraît emprunté aux rélieurs*".

Though not unusual,⁽⁹⁰⁾ it is helpful to underline the connection between metalwork decoration and the arts of the book. It will be recalled that Professor Huth saw a close relationship between stamped leather book-bindings and the problem of "Veneto-Saracenic" metalwork. However, it is impossible to be sure whether the influence is due to direct borrowing from bound volumes or from pattern books, or, indeed, of the relationship between the two crafts. The same punches were used, it seems, on both leather and metal. The borrowing of a design and adapting it to the task in hand is perfectly illustrated by another motif on the basin, that on the inside of the base (Melikian-Chirvani:1969/1,pl.33). Here, transformed into a border round a central area of knots, also found on "Veneto-Saracenic" objects (fig.4a K2A), appears a variant of the "dart and shield" motif (figs 36-38,42). This part of the basin was, however, according to Dr Melikian-Chirvani, never inlaid (129). Although he said that the motif recalled a basin with a sharply flaring rim in the Victoria and Albert Museum (inv.no.206-1892, 1969/1,116-119, pls.16-18) in the name of Muhammad ibn Saif al-Din Uzbek,⁽⁹¹⁾ the basin does not, in fact, carry the same design. However, shield-shaped motifs can be seen in the ogival terminals to either side of the central decorative band on the outside (1969/1, pl.17). The basin is dated to between 1482 (when Muhammad ibn Saif al-Din was elevated to the rank of Amir of Ten in the service of Qa'itbay), and the death of the sultan in 1495, and is therefore of great interest here. Dr Melikian-Chirvani also thought that the

basin might have been made in Cairo, although he was cautious about assigning objects to specific workshops in different cities until more work has been done.

The objects published by Dr Allan, in his two articles on later Mamluk metalwork (1969, 1971) are similarly not inlaid but made of tinned bronze. The repertory of decorative motifs, however, remains the same, as far as it is possible to judge from those pieces that are illustrated, and are vital to the understanding of the majority of pieces contained in this catalogue which have been described as "Veneto-Saracenic" in the past. The most common motifs will be discussed individually in Chapter 3. The most interesting aspect of the metalwork of the later 15th century published to date is the apparent absence of inlay on the majority of the court pieces,⁽⁹²⁾ as we saw above. The question has already been raised as to the reason behind this apparent lack. Was it because Qa'itbay was so devout that he disliked the use of precious metal not only for religious but also secular use? He undertook the refurbishment of numerous mosques, including that of the Prophet in Medina, and was a patron of some generosity⁽⁹³⁾. Yet the basin in Istanbul is splendidly inlaid with silver and gold and, before the inlay was lost, the faceted basin in the Victoria and Albert must have been equally spectacular. Dr Melikian-Chirvani was at pains to demonstrate (1969/1) that the closeness of the designs of the engraved and inlaid objects meant that they must be connected in some way, perhaps through a common workshop employing craftsmen skilled in different techniques. If it is right, as the present study suggests, to add many of the objects hitherto described as "Veneto-Saracenic" to the corpus of later Mamluk metalwork, the balance of inlaid to engraved brass objects is redressed. It does not however explain why the large, quality objects for the sultan should be merely engraved while the small domestic objects, which form the majority of the pieces in this study, should be inlaid with silver and, in a few cases, gold. Although the amount of precious metal used in the inlaid objects is relatively small, which seems to negate the reason lying in the precious metal "famine", the technique involved a long, laborious

task. Certainly, in an age that did not measure the time spent in creating an object in terms of wage per hour, the length of the task was not perhaps so crucial as it is today, provided the patron recognised in financial terms the effort required to produce the final effect. Qa'itbay seems to have been interested in the achievements of previous eras (Newhall:175,179-196). The metalwork of his age echoes in particular that of the 14th century in its detail, and it might be expected, therefore, that the technical skills of the previous age would also have attracted him. It is not that the skills were not available, as the splendid basins in Istanbul and London show, as does the ewer published by Rice (1953/3, pl.VI). The answer to this intriguing question seems therefore to lie in the personal taste of the Sultan who chose, for a reason that has to remain speculative at present, to commission on the whole objects without precious metal inlay.

(E) Ottoman Turkey

After the Ottoman conquest of the Mamluk territories in 1517, it has been supposed that the fashion for inlaid metalwork finally died out in Egypt and Syria. The Ottoman taste was, it seems, for a more flamboyant style, with precious metal and jewels as the main attraction.⁽⁹⁴⁾ Yet elements in the work of Zain al-Din's workshop belong to the Ottoman repertoire. Zain al-Din was clearly working in the same tradition as Mahmud al-Kurdi. The hemispherical bowls with flat covers, bucket and spherical incense burner are close in style to the objects made by Mahmud, the bowls even being signed in the same way on the upper rim (cat.nos.59-63). Technically too the work is similar; his workshop used "linear" and "spatial" inlays, driving both into parallel engraved indentations. Aesthetically their concerns were those of the Kurd. Zain al-Din also varied the emphasis in his designs between areas of heavy wire-inlaid split palmettes and finer engraved arabesques. Each motif is filled with its own decoration, featuring dart chains (fig.14), split palmettes and minute fleurs de lys (fig.62c and d, fig.69). The ground is gouged out to hold a black compound. However, in other respects

Zain al-Din's work differs from that of Mahmud al-Kurdi. The workshop did not, it seems, use a cross-hatched ground. Behind the signature on the incense burner in Baltimore (Walters Art Gallery, inv.no. 54.2236, cat.no.22 pls 65 and 66), for example, where Mahmud would have added colour by incised hatching, Zain al-Din used tiny "curl" stems. The most significant difference lies, I believe, in the workshop's use of a sub-divided split palmette, a feature never found in the known pieces by the master Mahmud. This motif is discussed again in Chapter 3 Part II, Section 9; it appears on 13th-century Mawsili inlaid metalwork, as, for example, on a tray made for Badr al-Din Lu'lu in the London (Victoria and Albert, inv.no.905-1907; Rice:1950,633,figs.7,8) and emerges again with special prominence in Ottoman design in the 16th century. It is dramatically illustrated on the cover of Tulips, Arabesques and Turbans (Petsopoulos:1982) where blue and white split palmettes scroll over the "sealing wax" red ground of a rectangular border tile dated about 1575. Zain al-Din used the motif to great effect incised into the base of a bucket in the Victoria and Albert Museum (inv.no.1826-1888, cat.no.244,pl.46,fig.61). He used another motif which also has links with Ottoman design on the inside of the same bucket (fig.33). Here the arrangement of a split palmette arabesque, which features a trefoil to mark the point at which the stems bifurcate, leaves a small uneven hexagon in reserve in the centre, delineated by three split palmettes. These form a shield-like device before curling round to continue their circular scrolls. This is very close indeed to the arrangement of similar arabesques on Ottoman metalwork. A silver bowl previously in the collection of Ibrahim Beyhun, for example, has a similar motif used both inside and outside on the base against a ring-punched ground (Petsopoulos:1982,44,no.21). As Drs Allan and Raby pointed out, "Abraham of Kutahya" early Iznik ceramics also feature the motif, which surrounds a central polygon (44,pl.72).

Because of the links with the work of Mahmud al-Kurdi on the one hand and the Ottoman style on the other, this writer suggests that Zain al-Din and his followers were working in Ottoman Anatolia in the

16th century, that is a generation later than Mahmud. This would mean, of course, that the taste for inlaid metal was not completely lost in Ottoman Turkey in the 16th century, as it had seemed to be.

However, before turning to the question of the individual motifs found on the so-called "Veneto-Saracenic" objects, it is necessary to look further East to explain another strand in the decoration which bears little relationship to the styles looked at so far in this chapter.

(F) Timurid Iran

The last area that needs to be surveyed in relation to objects that are the concern of this study is the Iran of Timur and his successors. This period is particularly relevant to "Veneto-Saracenic" pieces because, as was mentioned before, objects now identified as Timurid were once assigned to this school.⁽⁹⁵⁾ Undoubtedly there is a close kinship between the technique of the Timurid metalworkers and that of Group B, in particular, as we saw above. It is now necessary to look briefly at the evidence for the Timurid style. Dr Komaroff (1984, Ch. II, 174-236), as was also mentioned earlier, recently analysed a group of objects from among the earliest products of Timur's reign, located at the Shrine Complex of Khwajah Ahmad Yasawi, namely a large cauldron and a group of candlesticks. The Shrine, according to the Zafar Nameh of Sharaf al-Din 'Ali Yazdi,⁽⁹⁶⁾ was rebuilt by Timur in about 799/1396-7; it is located so far east, in modern Turkestan beyond the Oxus river in Soviet Kazakhstan, that it may seem strange to find anything relevant in it to the present study. However, as Dr Komaroff indicated,⁽⁹⁷⁾ Timur's policy of taking master craftsmen in a forced levy to work in his capital, Samarqand, as part of the booty from a conquered city, led to a hybrid style both in architecture and metalwork. Elements of this mix appear again in metalwork later in the 15th century and re-emerge in a different form in Group B.

The analysis of the Timurid style, then, begins with the Khwajah Ahmad Yasawi shrine complex. Five of the six lamps and the cauldron state that they were made on the order of Timur, the cauldron giving the additional information that it was intended for the shrine. Dr Komaroff gave a detailed description of the cauldron (185-191, pls 47-49). She drew attention to its probable forebear, a large cauldron which stands in the courtyard of the Masjid-i Jami' at Herat, basing her argument on the casting technique as well as the decorative details.⁽⁹⁸⁾ For our purposes the connection is an important one, for it is generally assumed that the majority of small, pot-bellied ewers, whose decoration is reminiscent of Group B, were made in Herat. The decoration of the cauldron, whose size suggests that it too was made in Herat (for it would have been cumbersome to transport), is divided into horizontal registers. The two uppermost bands contain inscriptions which have been read by Dr Melikian-Chirvani (1969/3,7); the lowest register, which is also the widest, has a series of generous arabesques subdivided by ogival medallions. The effect of the cast decoration, which stands in relief against the main hemispherical surface, is not unlike a hugely magnified wire inlay. Or, put conversely, in a miniature copy a wire inlay would fulfil the same aesthetic purpose. The form of the arabesque, which is made up of a series of split palmettes issuing from an undulating stem, is also significant because of its relation to "Veneto-Saracenic" decoration. Lastly, the shape of the cauldron - with its rounded bottom, supported on a ring with a series of feet - is notably similar (albeit vastly magnified) to the round-bottomed boxes and lids of the present study, whose instability seems to demand some form of support. The cauldron from the Shrine complex shares with its cousin in Herat a similarity in the shape of the body and in the division of its decoration into horizontal registers with ogival decorative motifs. Here, however, they hang as pendants from the lowest inscriptional band and are filled with arabesques (Komaroff: 1984, pl.48). The motifs seem closest to architectural details, as exemplified in Kashan ceramic lustre *mihrabs*,⁽⁹⁹⁾ whose moulded surface gives the same three-dimensional effect as the cast or inlaid metal.

The six lamps from the Shrine complex equally display elements of the future development of Timurid metalwork.⁽¹⁰⁰⁾ Only Dr Komaroff's Group A still retain their gold and silver inlay, but the second group too show signs, in their incised indentations, of having once been, or having been intended to be, inlaid.⁽¹⁰¹⁾ The decorative elements of interest to us here are : a quatrefoil made up of eight split palmette leaves, round the middle of which is entwined a concave-sided rhomb (Komaroff:1984 pls. 54,60, my fig.44b); alternating roundels and ogival-ended medallions (Komaroff:1984, pl. 63); and a counter-change motif. The quatrefoils are connected to knots which share the same characteristic of a central rhomb round four crossed loops. The counter-change motif features a fleur de lys, the outline of each leaf being made up of small, individual split palmettes (Komaroff:1984 pl.63). The device has already been commented upon in Section 3(C). Apart from the decorative motifs, the most relevant element of Dr Komaroff's discussion to this study are her comments on the inclusion of the honorific title al-Janab in five of the six lamps.⁽¹⁰²⁾ The title is one frequently used in inscriptions of dedication to Mamluk amirs (214-21).⁽¹⁰³⁾ However Dr Komaroff did not draw attention to the fact that in the Mamluk examples al-Janab is frequently followed by al-'Ali, to form the phrase "his high excellency", whereas on the Timurid lamps al-Janab is followed by al-Malik. Whether or not this is significant awaits clarification. Dr Komaroff noted (257 n.122) that the earliest example known to her is dated to the 13th century and that the title was still in use in 1974 for high officials.⁽¹⁰⁴⁾ The title appears on the Shrine complex lamps in the context of another common Mamluk form of inscription: "*mimma 'umila bi-rasm*", "Of what was made on the order of..." Although this formula of dedication was not unknown in Iran before Timur,⁽¹⁰⁵⁾ the tight form of the *thuluth* epigraphy suggested to Dr Komaroff a direct Mamluk influence, which she ascribed to Timur's sack of Damascus in 1401 and the subsequent abduction of master craftsmen, as described by Ahmad ibn 'Arabshah and de Mignanelli.⁽¹⁰⁶⁾ If it is right to see the features described above as evidence of Mamluk craftsmen working in Eastern Iran, then the similarity and consequent confusion between 15th-century Iranian and

Western Islamic metalwork is less surprising. For confusion and disagreement there certainly is. The only indisputable objects are those few that state they were made in a particular place, although by extension a governor of a town or district might be expected to support his local craftsmen. Enough work has been done on the *nisba*⁽¹⁰⁷⁾ to demonstrate the unreliability of this information as a means of determining where a man was working, as we saw above. In one late 15th-century piece of metal-work there is even dissension on the origin of the *nisba* Dimash-qi.⁽¹⁰⁸⁾ Dr Komaroff believed Dimashqi to refer to a district of Samarqand, Timur's capital, whose suburbs he named after famous Islamic cities. This would mean that the craftsman bearing the epithet "the Damascene" was an Iranian and not from the Syrian city. However, by her own argument, the abduction of master craftsmen from Damascus by Timur in 1401 could equally account for a craftsman of that name being in Khurasan two generations later,⁽¹⁰⁹⁾ or he could have been a more recent immigrant. The continuing use of the *nisba* al-Mawsili bears witness to the longevity of a tradition.⁽¹¹⁰⁾ It is also possible that Shir 'Ali al-Dimashqi was not working in Khurasan at all, but in a comparable style elsewhere, as we shall see below. The lotus within a lime-shaped cusped medallion (Appendix fig.T4c), the loosely entwined running stems (Appendix fig.T3a TF1) and the overall aesthetic of the ewer are not found on other Timurid examples of the period. That the shape is not exclusively Khurasanian is borne out by a ewer in the Kunstgewerbemuseum, Berlin (inv.no.11,53, Appendix I no.27, my pl.47).⁽¹¹¹⁾ This piece is clearly late Mamluk, to judge by the style of the inscriptions, which are contained within medallions that alternate with roundels filled with a motif which starts at the circumference and ends at the centre with six trefoils (Appendix fig. T11e). Other medallions are filled with knots and twisted ropes (Appendix fig.T1 TK2 TK3). It also bears the familiar Mamluk chevron border (Appendix fig.T5b TG5) and six-petalled rosettes. The ewer was attributed to Venice by the Kunstgewerbemuseum, an understandable label for similar roundels with six-part motifs and non-epigraphic medallions filled with triple knots and ropes are found frequently on objects traditionally labelled "made in Venice by

Islamic craftsmen". There are many examples in the present catalogue under Group A. However, as I have argued above, far from these motifs allowing a Venetian provenance for the ewer, the converse is true : it should be seen as an extension of Group A "Veneto-Saracenic" wares which were manufactured in Mamluk Syria or Egypt. This in turn increases the probability that Shir 'Ali al-Dimashqi was not from Samarqand but a Syrian.

The particular relevance of the "Timurid" ewers, and the discrepancies in their decoration, have already been explained above. The results of a stylistic analysis of them are summarised in Appendix 1 and the accompanying figures. A distinct pattern emerges and where, rarely, it is broken it seems probable that the ewer was not made in the same area as the majority of pieces, that is in the Herat of Timur and his successors. This attribution is based on one vessel in the British Museum,⁽¹¹²⁾ which is inscribed with the name and titles of Sultan Husayn Bayqara (1468-1506), the last Timurid ruler from that city; and on three *nisbas*, al-Ghuri, al-Quhistani and al-Birjandi (Appendix I nos.3,6;9,10,11,37; Komaroff:1979-80,12), all of which refer to cities or districts of Khurasan.⁽¹¹³⁾

Leaving aside for the moment the rogues in the gallery, that is the ewer in the Türk ve İslam Eserleri Müzezi in Istanbul with the *nisba* al-Dimashqi (Appendix I no.4) and the ewer in the Kunstgewerbemuseum, Berlin (Appendix I no.27), as well as the Ottoman examples (Appendix I nos.18,24,45) and those ewers that clearly belong to a separate group, probably Turcoman (Allan:1986,142; Appendix nos.15,17,22,44) the other ewers show a remarkable consistency in the motifs they bear. The way the motifs are used varies according to the date. In the earliest ewers, as Dr Komaroff has shown (1979-80,12), the decoration concentrates on broad bands of horizontal inscriptions on the body and neck (Appendix I nos.1-3). The undated example signed by Bashir Muhammad (Appendix I no.34) has inscriptions in the same style and thus probably also dates to the later 1450's or 1460's. Those ewers dated in the 1480's (Appendix I nos.5 and 6) have smaller-scale inscriptions in cusped cartouches that are almost

hidden among neat, repetitive quatrelobed motifs (Appendix fig.TH varieties) on the neck and belly. To this group belong the undated examples in Florence (Appendix I no.25), Copenhagen (Appendix I no.29), Hannover (Appendix I no.30) and probably Keir Collection no.146 (Appendix I no.21) as well as British Musum inv.no.1878 12-30 730 (Appendix I no.35). Interestingly, the same rather precise arrangement of motifs is found on a later ewer, that recently came on the art market (Appendix I no.37) which has the date Jumadi II AH918/ 14 August 1512 engraved under its foot. The only clue stylistically to its later date lies in the sharply divided leaves of the trefoils.

The ewers dated in the 1490's (Appendix I nos.7-9) are decorated with motifs taken from border designs (Appendix figs.TB and TF) rather than the TH variety confined to lobed medallions. The inscriptions are slightly larger-scale and neatly contained in narrow, cusped cartouches on the neck or belly. This trend continues into the early Safavid period, the dated piece (Appendix I no.11, motifs of no.10 unknown) bearing its inscriptions in cusped cartouches in the same position as the previous group. The decoration now becomes less clearly organised, giving the impression of an all-over busyness. By a few years later (Appendix I no.12), the decoration has become even more fussy, though it is now made up of a individual motifs (App.fig.T11f, TH2h variant and a debased lotus blossom) in a series of repetitive cusped medallions, the only break in the monotony being achieved through alternating inlays of gold and silver. The inscription is confined to a band around the middle of the belly, subdivided by means of a vertical stem with trefoil terminals. Similar cusped divisions appear on the necks of ewers in Leningrad (Appendix I no.41) and Seattle (Appendix I no.26), although both of these also carry larger-scale cusped medallions on their bodies. The remaining pieces, which include the ewer with a neck inscription published by Dr Komaroff (1979-80,13-14, Appendix I no.31), have motifs taken from border designs (fig.42c) and the familiar TH variety which are contained within both large- and small-scale cusped medallions. These are usually, but not always (Appendix I nos 20,

43), divided into registers by one (Appendix I no.28) or two (Appendix I nos 14,16,19,32,33,36,38) plain fillets, usually with a double running stem between (Appendix fig.T3b-e TF2 varieties).

We now return now to the ewers that do not fit into the overall pattern. The example signed by Shir 'Ali ibn Muhammad Dimasqhi (Appendix I no.4) has epigraphic cartouches on its body as well as a band of larger-scale inscriptions on its neck. It carries motifs not found elsewhere on the ewers summarised here : a lotus blossom (Appendix fig.T11c), a chevron border (Appendix fig.T5b TG5) and small four-petalled rosettes enclosed in roundels formed by the twisting fillet borders of the central cartouches. The mixture of recognisably Timurid and Mamluk elements found on the ewer points to a place of manufacture at a remove from the main Iranian centre. Perhaps here too, as we have seen in the work of Mahmud al-Kurdi, the eclectic nature of the decoration indicates a Turcoman school. It has already been suggested that the other "rogue" ewer in the Kunstgewerbemuseum, Berlin (Appendix I no.27, pl.47) should be re-assigned to a Mamluk workshop.

To sum up, one type of motif is widely used on the ewers - the group TH (Appendix figs.9-10), which consists of four pointed ovoids formed by half-palmettes, entwined around a central rhomb. The later the object, the more intricate this motif tends to become,⁽¹¹⁴⁾ a phenomenon already mentioned with regard to the work of Mahmud al-Kurdi in Chapter 1, Section 6. The narrow borders (Appendix figs. T3-T5, TF and TG varieties) also tend to be widespread. But the approach to the way the motifs are used changes. The designs become larger and more important, as well as more intricate. The entwined scrolling stems become looser and the overall effect flatter, so that the decoration on Safavid ewers seems two- rather than three-dimensional. This tendency is present from the beginning because, although the motifs wind over and under each other, none is given dominance, indicating that a single plane was envisaged. The TH motif within its encompassing frame, which can be cusped or quatre-lobed (Appendix figs.T9-T10), or freed from it (Appendix I no.5)

begins at the centre and moves outwards, being in a sense self-sufficient because unconnected with its neighbour, unless the frame itself twists to form a link. This is also true of the decoration on Mamluk metalwork, where each motif is contained within a frame, although again the frame always connects to the adjoining area, either above, below or to the side. This is not true either of Ottoman or of European work.

The Ottoman ewers included in Appendix I (nos.18,24,45) are made of precious metal, admittedly, while the other examples are not, and their decoration is worked from both behind and in front of the sheet metal. This style is at first sight completely new : yet analysis shows it is in fact a development of the motifs found on the Timurid-Safavid group, being based on an enlarged chain (Appendix figs T2d and e TA2a and 4) or scrolling intertwined stems (Appendix figs.T8a-c TF5a-c). What is noteworthy is that the chain is three-dimensional. One dominant element is superimposed over the secondary links. The scrolling stems too have one dominant and one subordinate branch.

From the brief summary of motifs found on pot-bellied ewers over roughly half a century, it can be seen that, although the designs remain more or less constant - in particular being arranged in a centrifugal way moving from the centre outwards and showing only a tendency towards becoming more complex - the way those motifs were used reveals a clear division between the early Timurid examples and the later Safavid and Ottoman pieces. The motifs on the later Safavid objects tend to be less clearly arranged on horizontal bands, although some division of the surface still occurs by means of narrow borders. In particular, the division between the Iranian and Ottoman pieces is most marked, indicating a different view of the depth of the surface by the use of the separate strands of the designs. The Timurid and Safavid masters used the motifs in a two-dimensional way, while the Ottoman pieces show a three-dimensional approach.

Having finished the brief survey of inlaid metalwork in the Levant, it is now time to turn back to Europe to look at those inlaid objects that are indisputably made by Western craftsmen. It has already been suggested above that a fundamental difference in approach can be detected between Mamluk, Persian and Ottoman design. Our next task is to see if a similarly distinctive mode can be detected in European metalwork.

(G) Europe

First it is necessary to try to establish a method by which European imitations of Islamic work can be identified. The temptation is to assign all work of an inferior quality in technique or design to European copies. But this is clearly unfair to the highly skilled craftsmen from Italy, in particular, whose reputation ensured them patronage outside their own country.⁽¹¹⁵⁾ Their undoubted skill makes it difficult to separate the Western work from the Islamic models, for it is the mark of a talented technician that he can copy any motif or technique. But in one respect, I believe, even a first-class artist will give himself away, as we have seen - and that is in aesthetic. It is the basic approach to a painting, for example, that distinguishes a Victorian copy from a Renaissance original. This concept has already been discussed in detail above. In the metalwork that is the concern of this study, although the motif itself may be copied to perfection, there are fundamentally different approaches to the overall design.

In objects that are known to be European, either through content or signature, the motifs are arranged in horizontal bands that are self-contained. They neither link to the neighbouring area nor do they reflect the shape of the object. If a wheel-like design is used, the spokes have the same function as columns in architecture, supporting an "entablature", in the form of an encircling band, rather than being part of it. This can be seen on a brass dish signed by Nicolò Rugina in the British Museum (inv.no.MLA 1855.12-1.3; Rogers and Ward:1988,111, no.47). Here a central roundel is

surrounded by four concentric borders. The bands are divided into segments, and are supported by six "pilasters", each with a plinth and a capital. Within each segment appears a self-contained motif. The fillet frame of each of these medallions is extended towards its neighbour in the adjoining segment, but where in an Islamic example, these would occupy the same space, in Rugina's salver each has a "room" to itself, its space defined by the column-spoke.

Even where the design is not so openly architectural, Professor Sir Ernst Gombrich believed that European design remains deeply indebted to its Classical origins, while Islamic design has been forced to conform to no such constraint (1979,75-78). Indeed, Professor Gombrich saw Islamic design starting with the motif while European design, on the contrary, started with the subdivision of the space to be filled, the motifs being tailored to fit the designated space (78-79). Although it is misleading to suppose that the Islamic designer did not subdivide the space into which his pattern was to appear, it is vital to distinguish between the European concept of space as being defined, and the Islamic idea of infinite space. In Islamic design, a repeat pattern ends at a border with a quarter- or half-motif depending on its position (Hankin:1925), as we saw in relation to Qur'anic panels, discussed in Chapter 1 Section 6. This allows the viewer to envisage an endless repeat continuing into infinity. In Western design, on the contrary, even in a non-architectural design, the pattern is presented to the viewer as complete. This concept can be seen on the much quoted salver in Vienna,⁽¹¹⁶⁾ also signed by Nicolò Rugina and dated 1550 (cat.no. 197), where there are no architectural elements and where the space is clearly divided into horizontal bands. At the rim each element of the pattern is neatly finished by the raised lip.

Another European characteristic is illustrated by the Viennese salver. The individual motifs do not alter in dimension; there is no distinction between the main area, the cavetto and the rim, the stems scrolling unchanged in size or emphasis over the whole surface. When Zain al-Din or Mahmud al-Kurdi, the masters who are most

frequently linked with this salver and its Corfiote maker (see, for example, Huth:1970,67), design the decoration for a curved surface, there is always a change in size or complexity in response to the different regions of the object, especially evident in the round-bottomed boxes and lids (cat.nos.59-69). The salvers of Group A (cat.no.167-169,172,175,183), re-assigned in the present thesis to the Mamluk territories, obey the dictates of the form to an even greater extent, the horizontal bands being perfectly adapted to allow each area its own emphasis. Yet each band is linked to its neighbour to guard against any sense of rigidly subdivided space.

In another European example in the Courtauld Institute (inv.no. 44, cat.no.176, pls 41 and 42), already discussed in relation to Benvenuto Cellini's comments on design (Bull:1956,62), the same criterion holds true. Hidden among the arabesques the presence of tiny birds, harpies and masks are proof of its European manufacture. A shield bearing heraldic arms in the central roundel has a classical laurel wreath around it, and another, cross-banded by ribbons, marks the edge of the central umbo. The decoration was doubtless considered to have the necessary "decorum" for a salver in the mould of a Roman paten.⁽¹¹⁷⁾ Between this raised area and the cavetto runs a border of cartouches filled with floral stems. They are not true arabesques, however, for there is no sense of the scrolls continuing indefinitely, nor are the leaves and flowers "always ultimately connected with (the stalk)".⁽¹¹⁸⁾

Even without the European details of laurel wreaths, classical ribbons, masks and grotesques, it would be possible to attribute the Courtauld salver without hesitation to a European workshop. In an Islamic design, each element is based on a circle. An oblong medallion will be, for example, double the width of the diameter of a neighbouring roundel. Each scroll of an arabesque will conform to a circle, as will the ogee curves of a medallion terminal or fleur de lys.⁽¹¹⁹⁾ In European design, however, as the Courtauld salver demonstrates, motifs do not conform to this rule. The medallions on the salver are wider than twice their height, and, moreover, there is

no intervening roundel to act as a continuous connection or to establish the basic dimension. Instead, the apex of each ogee on the salver is extended to meet that of the neighbouring medallion. The cusps of the ogees vary in diameter too, giving a staccato rhythm to the border. On the cavetto, this tendency towards an interrupted flow is even more marked, each medallion being unconnected to its neighbour, lying isolated between panels of self-sufficient floral stems. Even the silver wires delineating the motifs are treated differently from an Islamic technique. They have been hammered flat, and vary in width, following the curving contours of the areas they enclose.

There is another aspect to European design that marks it as fundamentally different from its Islamic counterpart. It is apparent that in European pattern the negative space is of secondary importance. Often a motif will create an awkward shape around itself. This too can be seen on the Courtauld salver. The cavetto in particular has areas that are clumsy and difficult to fill, as, for example, around the bulging "belly" of the inlaid medallions. In Islamic design, the negative space is as important as the positive. This is particularly well demonstrated in the counter-change motifs (figs 72 and 73) but it is equally to be seen in all Islamic geometric design, where it is sometimes difficult to be sure which is the primary and which the secondary element. Indeed, the ambiguities and visual puzzles prevent a repetitive design from becoming monotonous, as the eye constantly switches from one element to another.⁽¹²⁰⁾ By using this criterion, it is probably right to assign a European provenance, even without the garbled "inscriptions", to a bucket in the Museum für Islamische Kunst, Berlin (inv.no. B72, cat.no.251, pl.60). There is no balance between the different elements of the design; the main motifs are acceptable by Islamic standards but the negative spaces between them are irregular and strained, although it is also possible that the work is by an incompetent Islamic craftsman.

To test the hypothesis further, we now come to a particularly difficult test - that of the salver in the Walters Art Gallery (inv.no.54.527, cat.no.163, pls 15-18, fig.78). This was listed by Professor Mayer as no.3 of Mahmud al-Kurdi's oeuvre (1959,57) and has already been discussed with regard to the epigraphy in Chapter 1 Section 6. The two sides of the argument can be summarised thus :

(a) For a European provenance

(1) The "inscription" on the rim was stated by Professor Mayer to be the signature of Mahmud al-Kurdi. Although it might be possible to read the second part of it as "*al-Kurdi yarju al-maghfir*", there are enough peculiarities in its form to raise an immediate question as to its authenticity. In all other cases of Mahmud's work, as we saw in Chapter 1 Section 6, the form of epigraphy remained constant. Here the form of the *kaf*, the diacritical points of the *ya* appearing above rather than below the letter, and the bifurcating terminal to the *'ra* and *ya* present serious problems. The latter detail in particular recalls the "gothic" elements of kuficising inscriptions in the work of Italian painters of the 15th century.⁽¹²¹⁾ The first part of the inscription I have been unable to decipher (pl.17), while those on the cavetto (not illustrated here) seem to be equally unintelligible.

(2) The arrangement of the decorative bands surround the central roundel are awkward. Eight "spokes" divide the base of the salver, four of them made up of cusped medallions. These terminate in pointed ogival finials, which point towards the central roundel or, in the outer border, towards the cavetto. Large fleurs de lys top two of the intermediary panels, while the others have no terminal but rather end abruptly in panels (to which they are unconnected) of counter-change ogees. An engraved arabesque covers the ground throughout. On the rim the arrangement is even more unsatisfactory. Ostensibly based on a circle, the relationship between various elements breaks down in key areas. Two extended oblong medallions have unconnected motifs of split palmettes, which are unremarkable

except for the fact that they are isolated in a medallion that is wider than twice its depth. However, two other extended medallions are filled with unconvincing knots and twists. Knots, in themselves unremarkable, also appear in an unusual position in the middle of a single wire outline, rather than at a connection point between two areas as they do, for instance, on Mahmud al-Kurdi's salver in the State Hermitage Museum (inv.no.VC 235, cat.no.161, pl.21).

On the evidence presented so far, a European workshop would seem to be the most likely origin of the salver. However, the decision is not so straight forward :

(b) For an Islamic provenance

(3) Around the central roundel, which contains a European shield, runs an arabesque border (fig.78). This is drawn "correctly" to an Islamic model, based on a series of circles. The areas of inlaid arabesques in the panels between the "spokes" are equally correctly drawn, as are motifs like the counter-change trefoils, the fleurs de lys and running stem borders. There is cross-hatching behind the fleurs de lys terminals to the cusped medallions and the engraved arabesques are equally Islamic in approach.

A salver in the Coutauld Institute may provide the answer to the problem (inv.no.77, cat.no.180, pls 51 and 52). Its lay-out is almost identical to that of the salver in the Walters Art Gallery except for one small detail. The Baltimore salver displays an awkward transition between one zone and the next, the terminals to the cusped medallions, for example, isolated in an oddly shaped area between two wire-delineated panels. On the London salver, there is no such problem. The medallions carry heavy wire-drawn finials that lead the eye towards the central roundel or out towards the cavetto. The cavetto too shows a basic difference in approach. Where the Baltimore salver has eight illegible cartouches isolated between arabesques which terminate in the odd knots described in (2) above, the London salver has heavy, elegant split palmette motifs

alternating with areas of engraved arabesques. In other words, on balance I would suggest that the London salver is a true Islamic example, while the Baltimore salver is a close copy made by a master who could imitate with precision the individual elements of the design but who, because of his environment, "saw" the space in which those elements appear in a different way to his Islamic model. It would be too remarkable a coincidence if we had indeed an Islamic original and its European copy, but that two salvers survive that are so close in design does suggest that the type was readily available for imitation in the West.

In the following chapter, a closer look is taken at the "Veneto-Saracenic" metalwork pieces. It starts with a brief summary of the different kinds of object encountered in the style. In Part II the motifs are discussed.

Notes

- (1) In contrast, see for example Spallanzani:1985, where the arms indicate an alliance between the two families of Venier and Molin and probably relate to a marriage in 1460 of Mario di Antonio di Marco Venier to the daughter of Maffio di Filippo Molin. The plate is of a high quality and it is possible that the arms were added to a plate that had been made about a hundred years earlier, to judge by its style, but 1460 would thus be the last possible date for its manufacture.
- (2) The exceptions are the objects (cat.nos.1,230) in the Freer Gallery of Art, see Atil, Chase, and Jett 1985,175,180; and candlestick in the Boston Museum of Fine Arts (cat.no.212).
- (3) For a description of these techniques, see Maryon:1971,104-112; 216-227.
- (4) Their presence in princely *Wunderkammer* throughout Europe attests their popularity among ruling families like the Medici, (Spallanzani:1980/2), the Dukes of Burgundy and Anjou (de Labarde), and the Hapsburgs (von Schlosser:1908); for a discussion on the possible reasons behind their popularity see Auld: (Forthcoming).
- (5) Benvenuto Cellini and Giorgio Vasari are discussed below. On Leonardo's knot designs, perhaps intended for his "Academy", see Hind:1948,93-95. For Dürer's copies, see Hind:1948 93-95 and Dodgson:1903,291. On the appeal of Islamic pattern to the West, see Evans:1931.
- (6) Sigoli:1865. He added that the objects were of such a quality that "if you had money in the bone of your leg, without fail you would break it off to buy ... those things". I am grateful to J. Higgitt and R. Tarr for their willingness to share their knowledge of mediaeval Latin and Italian terms with me.
- (7) Translated by Bull:1956,62 as "they had been engraved by iron tools with patterns of beautiful foliage, in the Turkish style, which were nicely filled with gold".
- (8) For a discussion on Cellini's comments, see Auld:(Forthcoming, 60).
- (9) See, for example, Buckton:1984,207-227, nos.29 30,31,32; and Hahnloser:1971; the Fatimid "veil of St. Anne", Church of Sainte-Anne, Apt, Arts:1976,76-77, no.8; the Spanish "cope of King Robert", Church of Saint Sernin, Toulouse, Arts:1976,78, nos.11a-b; the "chasuble of St. Edmund", Church of Saint Quiriace, Provins, Arts:1976,78,no.12.
- (10) See de Laborde:243 under "*Damas*" for a list of inventory entries for the duc d'Anjou (1360), Charles V of France (1380), and the Duc de Berry (1416). The 1447 inventory of King René of Anjou lists "*ung bacin, une haiguière et trois chandelliers de cuivre à ouvrage de Damas XXVIII florins.*"

- (11) For a discussion on why Islamic objects had a specific appeal to the West in the mediaeval period, see Ettinghausen:1974 and 1975. For the later period, I am indebted to Dr Raby for "Cabinets of Curiosities" (in a typescript sent to the author), who followed B.J. Balsiger, Kunst und Wunderkammern : a catalogue raisonné of collections in Germany, France and England, 1565-1750 (University of Pittsburgh Ph.D.,1970) in seeing a deliberate selection of representative objects from nature (*naturalia*) and technical ingenuity (*artificialia*) as a motive behind the collections in order to acquire a *theatrum mundi*. A similar point is made by me in Auld:(Forthcoming), where the aesthetic and possible magical aspects are also explored. On princely treasuries, see von Schlosser:1908.
- (12) Allan:1979, figs.3a-f:"linear" a-c; "spatial" d-f.
- (13) "*Ne'mia acciai io intagliavo molto profondamente a sottosquadro*", translated "... I cut much deeper and my undercutting was far wider..." in Bull:1956,62.
- (14) The description by Lane-Poole corresponds to the method of inlay used by Egyptian and Syrian metalworkers in the 15th and early 16th centuries. For examples see Allan:1969, 1971.
- (15) Inv.no.44, Gambier-Parry Catalogue no.202, published by Robinson:1967,170 (cat.no.176). The salver includes tiny birds, masks, and "grotesques" among the arabesque foliage and strapwork, and has a coat of arms in the centre, probably of the Giustiniani or Sagredo families. These correspond neatly to Cellini's recommendation to include "*alcuni uccelletti e diversi animali*" and other "*mostri*" to add charm to the design. Cellini:1891,64; Bull:1956,62.
- (16) It is possible to see this even on a photograph. See, for example, the jugs (1) in the Victoria and Albert Museum, inv.no.750-1889, Melikian-Chirvani:1982,257-8, no.116; (2) in the British Museum, inv.no.1878 12-30 732, Pope and Ackerman:1938,pl.1376a; (3) in the Seattle Art Museum, Bussagli:1956,LXIX, no.282b; (4) in the Bargello, Florence, inv.no. Bronzi 289, Curatola and Spallanzani:1981,13-16, especially fig.3c (Appendix I, cat.nos.16,12,26).
- (17) Victoria and Albert Museum, inv.no.M.190-1951, Melikian-Chirvani:1974/2,115,figs.8,9.
- (18) Modern silver wire, even when properly annealed, cracks when bent into the tight convolutions of arabesques found inlaid on Timurid and "Veneto-Saracenic" metalwork. The silver used for "spatial" inlay must have also been of a high quality to allow it to be hammered or rolled to such a thin sheet that details engraved into the base metal can be seen through it. Gold is a more malleable metal than silver and does not need so much annealing to render it tractable. Another difficulty with high-grade silver, particularly fine silver wire, is that it easily melts during the annealing (heating) process which is necessary to stop the metal cracking while it is worked (see Maryon:1971,41-43,93-94). It is only when one handles metals that the skill and patience of the mediaeval Islamic metalworker can be recognised.

(19) An enlarged detail of Muhammad ibn al-Zain's "Baptistère de St Louis" on the back cover of Atil:1981 shows touches of gold on the horse's bridle, sword, halo and five-petalled rosettes. A jug in the Freer Gallery of Art, inv.no.77.4, Atil, Chase and Jett:1985, 181-185 is inlaid with gold wire used in an identical way to the silver wire inlay found on Timurid and Safavid jugs of the same type.

(20) Detail Melikian-Chirvani:1982, 234, fig.59.

(21) Atil:1981, 60, no.12. See also Allan:1979, figs 5a, 3a.

(22) See, for example, candlestick in the Nuhad Es-Said collection, Allan:1982, 80-83, no.13, especially p.83 where loss of the inlaid silver wire allows the single, zigzag incisions to be clearly seen. It is interesting that nos.10 and 12 in the same collection have a similar zigzag incision with no sign of inlay but which is used as a decorative motif in its own right. No.10, a ewer, Dr Allan thought was made in Siirt, in the late 13th or early 14th century; no.12, a basin, he thought was made in Syria from 1240-60, while no.13, a candlestick, he assigned to a Cairene workshop c.1270.

(23) Dr Allan (1984, 86) thought that sheet metal copper and brass objects from the reigns of al-Mu'ayyad Shaikh, Barsbay and Jaqmaq were never inlaid because the stippling on them was so light and the absence of inlay so complete. However, subsequent cleaning can completely alter the appearance of an object and it is difficult to be sure.

(24) See, for example, the evidence in the clear illustrations in Atil:1981, 57, 59, 65, 73, 74-75, 76-77, 89-91, 94-95 of the following objects : Cairo, Museum of Islamic Art inv.no.1657 of 1269, cat.10; British Museum inv.no.1878 12-30 682 of 1270, cat.11; Walters Art Gallery inv.no.54.459, cat.16; Cairo, Museum of Islamic Art inv.no.15089 of c.1300, cat.19; Musée de Louvre inv.no.MAO 331, c.1290-1310, cat.20; Musée de Louvre inv.no.LP 16, c.1290-1310, cat.21; British Museum inv.no. 1851 1-4 1, c.1330, cat.26; Cairo, Museum of Islamic Art inv.no.15038, c.1340, cat.27; Cairo, Museum of Islamic Art inv. no. 24085, mid-14th century, cat.28.

(25) Inv.no.91.1.565, dated c.1470-90, Atil:1981, 102-103, cat.35.

(26) Inv.no.15944, Atil:1981, 108-9, cat.39.

(27) Cairo, Museum of Islamic Art, inv.no.15107, Atil:1981, 60, cat.12.

(28) For example the salver signed by Mahmud al-Kurdi, British Museum, inv. no. 1878 12-30 705. This feature was remarked by Lane-Poole:1886/2, 452.

(29) Atil, Chase and Jett:1985, 180 where the presence of gold and mercury, detected by X-ray fluorescence, is reported. For the mercury gilding technique, see Maryon:1971, 151, 159-160, 262.

(30) The absence of silver on the objects made for Qa'itbay may be an indication of a shortage, although the cost of the small amount of silver needed for inlay dwindles beside the cost of Qa'itbay's building programme. The comparative paucity of the inlay on the "Veneto-Saracenic" objects may, on the other hand, be related to their relatively ordinary, domestic function. It is also possible that the earlier silver shortage changed peoples' expectations or taste to such an extent that inlay was no longer widely appreciated.

(31) The results were presented as a paper at a symposium, The Art of the Islamic Superpowers 1500-1700, Edinburgh University/National Museums of Scotland, in February 1987. A catalogue of the objects and their decorative motifs appears here in Appendix 1, and Appendix figures T1-T11.

(32) Inv.no.2/2160 dated Jumada II 872/28 December 1467, Mayer: 1959,83 pl.XIV, Appendix I no.4. See also Komaroff:1979-80,12 ns 12 and 26, where Dr Komaroff suggested al-Dimashqi referred not to the Syrian city of Damascus, but a suburb of Samarqand. In this she was following Barthold:1962. See below, Section (E).

(33) Qur'anic decoration, for example; Dublin, Chester Beatty Library MS 1465, fols.1b-2a, Cairo National Library 98, vol.1, fols 1b-2a, vol.2, fols.183b-184a, Dublin Chester Beatty Library MS 4168, fols 1b-2a, Atil:1981,32-33,42-47, nos 2,7,8,9, all of which make use of Timurid style motifs, as we saw above.

(34) Although no contemporary pattern book is known, the drawings by a 19th-century Persian craftsman, Mirza Akbar, now in the Victoria and Albert Museum (Gombrich:1979,pl.36) show how the method of constructing patterns in the 19th century remained virtually unchanged from those of three centuries earlier. An example of these were found by E.H. Hankin, incised into the plaster of the bathhouse of the palace of the Princess Jodhbai, wife of Akbar and mother of Jehangir, at Fatehpur-Sikri. Unfortunately, the bathhouse was destroyed by the British in 1840. Hankin:1905,461-77.

(35) For a review of previous work in the field, see Komaroff:1984, 4-12.

(36) See Atil, Chase, Jett:1985,102,103 and especially 109.

(37) The use of the *nisba* is open to discussion. Rice (1957/3, 286) stated "it (is) clear ... that the use of this *nisba* (al-Mawsili) indicates neither the origin of a piece from Mosul nor its being decorated in the "Mosulian" style."

(38) (1) Footed bowl, Victoria and Albert Museum inv.no.34-3872 Melikian-Chirvani:1982,126-7,no. 55, with the name Yusuf ibn Ahmad "the Tabrizi merchant"; (2) mortar, Metropolitan Museum of Art, 91.1.527A, with the name Abu Bakr 'Ali Malik da'd (sic) al-Tabrizi, Komaroff:1984,127, n.48.

(39) On the school of metalworkers in Fars, see Melikian-Chirvani 1969/2, 1982,136-157, and Komaroff:1984,31-95,174 ff.

(40) From Abu Sa'id's Geography, a manuscript in the Bibliothèque Nationale, Paris, no.2234 fol.73 v., both Arabic and translation from Rice:1957/3,283-4.

(41) The "Blacas" ewer, British Museum inv.no.1866 12-69 61, in J.T. Reinaud, Monuments arabes, persanes, et turcs du cabinet de M. le duc de Blacas et d'autres cabinets, Paris, 1828 II,423-39; Lane-Poole:1886,170-1; Pope and Ackerman (eds):1938-9, pls.1329-30, Arts:1976,179, no.196.

(42) These are : (1) Box, previously Henderson Collection, British Museum, inv.no.1878 12-30 674; (2) Tray, Victoria and Albert Museum, inv.no.905-1907; (3) Tray, previously in the Munich Library, now in the Staatliches Museum für Völkerkunde, inv.no.26-N-118 (no.197 in Arts:1976,p. 180); (4) Basin, Museum of the Academy of Sciences, Kiev; (5) Candlestick, Hermitage State Museum, Leningrad, inv.no.KN.3690; see Rice:1950,627-634.

(43) Inv.no.3435; Rice:1953/1,78-79 suggested Ibrahim ibn Mawaliya was already working in Mosul by the end of the 12th or early 13th century. The relationship of Isma'il ibn Ward to Ibrahim ibn Mawaliya al-Mawsili is deduced from Isma'il's signature on the underside of the box, drawn by Rice in fig.2, where Isma'il described himself as "*tilmidh*" to Ibrahim. See Komaroff:1984, 16-17.

(44) Kühnel:1939,8-9; Rice:1957/3,285; Allan:1982,20.

(45) Sourdél-Thomine:1971,46-51, no.2, pl.IIa, where similarities between the silver inlaid decoration of a Ka'ba key dated 1180 and early 13th century Jaziran wares were noted, suggesting that inlaying was practised in the Jazira before the Mongol destruction of Khurasan in 1220-21 drove the craftsmen westwards. For a review of the discussion, see Komaroff:1984,20-21. See too Allan:1985,127-139, where Dr Allan suggested that Jaziran and Syrian 13th-century shapes of bowl, candlestick, ewer and stem cup may echo lost Fatimid precursors or Syrian and Anatolian traditions.

(46) Rice:1957/3,326; (1) App.no.18 : candlestick dated 668/1270, signed by Muhammad ibn Hasan al-Mawsili, "*bi-Misr*", which, following Wiet:1932,48, may be translated either as Egypt or Old Cairo or Cairo itself; Museum of Islamic Art, Cairo, Wiet:1932 inv.no.1657, pl.27; Atil:1981, 57-58,no.10. (2) App.no.21 : ewer, signed 'Ali ibn Husain ibn Muhammad al-Mawsili, with the name of the Rasulid Malik al-Muzaffar Yusuf, made at Cairo dated 674/1275, Musée des Arts Decoratifs, Migeon:1927, II,85, fig.261. (3) App.no.23 : candlestick, signed by the same 'Ali ibn Husain ibn Muhammad al-Mawsili at Cairo, dated 681/1282, Cairo, Museum of Islamic Art; (4) App.no.24 : basin, signed by 'Ali ibn Husain al-Mawsili in Cairo, dated 684/1285, Louvre, Paris; (5) App.no.26 : tray, signed by Husain ibn Ahmad al-Mu'ayyad Da'ud (691-721/1297-1321) in Cairo, Metropolitan Museum of Art, New York, M.S. Dimand, "Metalwork", MMA Studies III, fig.2.

(47) Rice:1957/3,326, App.nos.3-7,9-15,17,19,20,25,26-28.

(48) Museum of Islamic Art, Cairo, inv.no.1657, Wiet:1932,47-49, pl. XXVII; and most recently, in colour, Atil:1981,47-48, no.10, where a bibliography is given.

(49) The ewer is illustrated in Rice:1957/3, pl.13 c-d.

(50) For example, candlestick, Cairo, Museum of Islamic Art inv.no. 1657; incense burner, Allan:1986,70-73, no.2. It is noticeable here that the seven musicians are contained within circular frames, while three eagles on the lid have cusped frames, raising the possibility that the cusps should be read as rays of light, if, further, it is right to interpret the eagles as solar images. However, on the other hand, the cusps may be of no significance for the lid of the footed incense burner is pierced, while the base is not, and the cusping may be due to a technical consideration, a cusped frame being perhaps more easily cut out and supported than a circular one.

(51) For example, footed incense burner, Museum of Islamic Art, Cairo inv.no.15107, Atil:1981,60, no.12.

(52) For example a brass basin made for Sultan al-'Adil II made by Ahmad ibn 'Umar al-Dhaki dated 636-8/1238-40, in the Musée du Louvre, Paris, inv.no.5991, Rice:1957/3,301,pl.6d.

(53) Both candlesticks and the planets are associated with light. The two symbols, astrological figures and light, are separate subjects, but their association with the light-providing candlestick provides a link. See for example Melikian-Chirvani:1976,290; and, more fully, in 1982,299-300 no.130a, inv.no.792-1901, a candlestick which has two sets of verses appropriate to the object. The first set, an opening distich of a *ghazal* by Jami, Dr. Melikian-Chirvani translated as

"From the fire of my passion for Thee the wick of my soul
raised its banner like the candle
My body melted all at once into tears, my eyes shed them like
a candle".

The second poem is also the beginning of a *ghazal*, its author as yet unidentified.

"Though the butterfly's heart grieves from the blackness of
the lamp
Before Thy moon-bright face, 'tis filled with fear of the
lamp
The fire of passion for Thee fell into the soul of the lamp
If Thou liftest the Veil from Thy face, woe to the lamp."

For a candlestick featuring astrological figures, see the separated base and socket made for Zain al-Din Kitbugha in c. 1290, Cairo, Museum of Islamic Art inv.no.4463 and the Walters Art Gallery Baltimore, inv.no.54.459, Atil:1981, nos.15-16. See especially p.66 which gives a view of the shoulder with the twelve planets and their associated zodiac signs. For a discussion of these figures see

Hartner:1938,113-54, and 1973-4,99-130. Although a famous pencecase featuring astrological figures in the British Museum (inv.no.1891 6-23 5) signed by Mahmud ibn Sunqur in 1281 was included in the exhibition of Mamluk art in Washington in 1981 (Atil:61, no.13) the minor motifs would seem more Iranian than Egyptian or Syrian and will therefore not be discussed here.

(54) For Scenes from the life of Christ, see Atil; Chase, and Jett: 1985, illustrations 137,140 and description on 138-9.

(55) For a discussion of this motif see Baer:1965,66-68 and 1983, 180-187; also Ackerman:1937,67-72. For a different interpretation of the animal headed vegetal arabesque, see below, Ch.3 Section 2.

(56) For example, on the socket of a candlestick made for Zain al-Din Kitbugha, Cairo, Museum of Islamic Art, inv.no.4463, Atil:1981,64 no.15.

(57) The fullest publication is a monograph by Rice:1953/4. Both bowls are illustrated in colour in Atil:1981,74-75,76-79, nos 20 and 21 where a full bibliography is also given.

(58) Cairo, Museum of Islamic Art, inv.no.4463, Atil:1981,64,no.15.

(59) See El-Said and Parman:1976,71 fig.50.

(60) For a similar effect, see for example a stone carpet decorated with lotus and palmette designs, from the North Palace of Ashurbanipal at Nineveh dating to c. 645 BC in the British Museum; Rawson: 1984,211 fig.187.

(61) See, for example, the ewer of about the same date as the bowl described above, also for an anonymous patron; Cairo, Museum of Islamic Art, inv.no.15089, Atil:1981,72-3, no.19.

(62) *"bi-rasm al-maqarr al-karim al-'ali al-mawlawi al-amiri al-kabiri al-mujahidi"*.

(63) Museum of Islamic Art, Cairo, inv.no.183, Atil:1981,86-7, no.25. For a similar Qur'an box, in Staatliche Museen Preussischer Kulturbesitz, Museum für Islamische Kunst, Berlin-Dahlem inv.no. 1.886, see Arts:1976,189, no.214. The bowl is in Modena, Galleria Estense inv.no. 2064, Rice:1957/1,489, pls.VII-X; Arts:1976,188, no. 212, which also has two different flowers often shown as half-florets and which relate to the lotus blossom (figs 52f and h).

(64) For a convincing interpretation of the imagery of this type of inscription, see Allan:1982,86-9, no.15. For the other examples of the radiating "sun-burst" inscriptions, see Atil:1981,96-7, no.30, which also features lotus blossoms and a trelliswork of lozenges; a rosewater sprinkler made for Sultan Hasan (ruled 1347-51 and 1354-61) Cairo, Museum of Islamic Art, inv.no. 15111, Atil:1981,98, no.31, again with a lozenge border and lotus blossoms; a candlestick in the Museum of Fine Arts, Boston, inv.no.34.168, Arts:1976,191, no. 217; a candlestick base previously in the Museo Artistico Industriale,

Rome, Rice:1953/3,497, fig.8. The association of solar imagery with lotus, rosettes, trefoils and split palmettes will be discussed under the individual motifs in Chapter 3.

(65) Museum of Islamic Art, Cairo, inv.no.24085, Atil:1981,94-5, no. 28, Arts:1976,191, no.219.

(66) Museum of Islamic Art, Cairo, inv.no.24084, Arts:1976,192, no. 220.

(67) Museum of Islamic Art, Cairo, inv.no.15126, Arts:1976,192, no. 221, and Rice:1953/3, pls.IV and V.

(68) Victoria and Albert Museum, inv.no.420-1854, dated 1361-82; see Allan:1984,pl.1.

(69) Museo Nazionale del Bargello, Florence, inv.no.357C, Arts:1976, no.216, Allan:1984, pl.2.

(70) Musée du Louvre, Paris, inv.no.7438; Mayer:1933,86, Arts:1971, no.169.

(71) Bibliothèque Nationale, Cabinet des Medailles, Paris inv.no. 5621, Lavoix:1877, Allan:1984, pl.3.

(72) Sourdél-Thomine:1971, 72-73, no.12 and pl.7a.

(73) Nouveau Drout Salle 6, 26 May 1981 lot 89; Allan:1984, pl.4. It may perhaps be the top half of a tray stand, in view of the inverted inscription.

(74) (1) Lock, Istanbul, Sourdél-Thomine:1971,74-5, no.13, pl.7; (2) Key, Paris, Musée du Louvre, Migeon:1922 II, no.48, pl.17.

(75) (1) Chandelier, Museum of Islamic Art, Cairo inv.no.382, Wiet:1932,32-33, pl.XIV; (2) Mirror, Museum of Islamic Art, Cairo, inv. no.15246, Islamic Art in Egypt 969-1517, Cairo 1969 no.81; (3) Mirror, Izmir, Riefstahl:1931,116, fig. 228; (4) Stand, c. 1422-37, Victoria and Albert Museum, inv.no.934-1884, Allan:1984, pl.5, which, like the inlaid fragment sold in Paris in 1981 (see note (54) above), continues the tradition of a monumental inscription as the main decorative motif; (5) Incense bowl, probably 1438-53, Museum of Islamic Art, Cairo, inv.no.3335, Wiet:1932,82-84, pl.XXVII; (6) Basin, probably also 1438-53, in Ghana, Allan:1984, note 15 (location not specified).

(76) The same conclusion was drawn by Dr Rogers from the architectural evidence. See Rogers:1976.

(77) al-Maqrizi:1845,II,97-98, quoted by Allan:1984,90.

(78) al-Maqrizi:1853,105; quoted in Allan:1984,90.

(79) Ibn Sasra of 1374, see Brinner:1963 I:250-1, II:189; Simone Sigoli in 1384-85, see Sigoli:1865,61-2; Bertrando de Mignanelli in 1402, see Fischel:1956, 226, quoted in Allan:1984,90.

(80) The first outbreak was in 1347, a year before it devastated Europe. For the history of the plague in Egypt and Syria, see Dols:1977 especially Ch.VII,255 ff."Economic Consequences"; for an analysis of its effect on Italy, see M. Meiss, Painting in Florence and Siena after the Black Death, Princeton 1951.

(81) See Allan:1984,91 where the numismatic evidence is given and Maqrizi quoted to the effect that the silver dirham did not again become common in monetary circulation until 817/1414. (al-Maqrizi, Kitab al-Suluk li Ma'rifat duwal al-Muluk, (ed.) S. Ashur, Cairo 1972, vol.4, pt.1,287-8.

(82) Fischel:1956,218-225; the subtitle of de Mignanelli's account is *ruina Damasci*.

(83) Yet Clavijo reported a swift recovery in Iran from Timur's devastations. See Barthold:1962,8 and below.

(84) Burgoyne and Richards:1987, quoting Nujum v,214-5 and Suluk iv,108.

(85) Wiet:1932,25, under inv.no.383, and Appendix nos. 355-377.

(86) See Atil:1981,101 under no.34, note 1. Wiet:1932 indicated that the five candlesticks, Appendix nos.338-42, pp 232-233, have the same form of inscription, but it is not clear if they all state that they were part of a *waqf* for the Mosque of the Prophet at Medina dating to Ramadan 887/Oct.-Nov.1482, as is stated on the three whose inscriptions are given in full, inv.nos.4072, pp.107-108, pl.XXXIII; 4297, p.118, pl XXXIV; and no.341, once in the collection of Ali Pasha Ibrahim.

(87) For an illustration in colour of candlestick inv.no.4297, see Atil:1981,101, no.34. It is also illustrated (in black and white) in Arts:1976,195, no.226.

(88) Wiet:1932:33-37, Museum of Islamic Art, Cairo, inv. nos. 383, 384, pls. XVI, XVII.

(89) Wiet:1932,239, App.no.375; then in the Hatoun collection.

(90) The converse is also true, that miniature paintings are a rich source of documentation for metalwork. On this matter in the context of Timurid metalwork, see Grube:1974, especially 245-251.

(91) Ibn Iyas:1955, I,100,292,333,355.

(92) A bowl in the name of Qa'itbay in the Metropolitan Museum of Art, Bequest of Edward C. Moore, inv.no.91.1.565 was described by Dr Atil (1981,102, no.35) as "brass, inlaid with silver." Although technically correct the description is misleading in that the inlay

is only in small discs set apparently at random at a later date within the engraved decoration. If it was originally inlaid with silver, no trace remains.

(93) Newhall:1987, especially 92-118, and 264-5. When Qa'itbay was informed of the disaster of 13 Ramadan 886/15 November 1481, when lightning struck the southeast minaret of the Prophet's Mosque in the Holy City of Medina, starting a fire that killed thirteen people and destroying everything except the interior of the tomb and the dome of the Bait al-Mal, the sultan is reported to have burst into tears. He vowed to reconstruct the mosque, considering it an honour granted by God (238-9).

(94) See, for example, in Petsopoulos (ed.):1982, Raby and Allan, "Metalwork", 17-48, especially nos. 18, 21, 23, 27, 28, 30, 31; and Rogers and Ward:1988, 146-152.

(95) See for example Grube:1964.

(96) Published in Tehran 1336/1957, 2 vols, 2, 426-7.

(97) Komaroff:1984, 179-180, quoting in particular the Spanish ambassador to Timur's court, Ruy Gonzalez de Clavijo, Embassy to Tamerlane 1403-1406, trans. Guy Le Strange, London 1928, 286-7, but also other contemporary sources, see footnote 18, p. 240.

(98) Komaroff:1984, 194-199, pl. 51; Melikian-Chirvani:1969/3.

(99) David Collection, Copenhagen, inv.no.1/1968, Arts:1976, 253, no. 373; Victoria and Albert Museum, inv.no.1527-1876, Arts:1976, 254, no. 375; Freer Gallery of Art, inv.no.99.319, Art:1973, 150-151, no. 68.

(100) For a detailed description, see Komaroff:1984 Appendix I, 623-639, plates 52-63.

(101) Komaroff:1984, 254, n. 99, nos. BIV-VI.

(102) Her nos AI-III, BIV, V, State Hermitage Museum, inv.nos SA15931, SA12686 (part; the other parts Paris, Musée du Louvre, inv.nos 7079 and 7080); SA15832; Shrine Complex of Khwajah Ahmad Yasawi, inv. nos 63B, 68A.

(103) See for example Wiet:1932, Appendix nos 133, 173, 204, 235, 236, 245, 289 (all of the 14th century), 301, 314 (15th century), 418, 422, 427, 428, 430, 443, 446, 458, 461 (all before 1517).

(104) Quoting Lambton, Persian Grammar, Cambridge, reprinted 1979, 167.

(105) A basin from Ardebil dated c. 1360-74 is inscribed "Of what was made on the order of ... Shaykh Uways", Iran Bastan Museum, Tehran, Komaroff:1984, 97-98.

(106) Komaroff:1984,216, quoting J.H. Sanders, trans. Tamerlane or Timur the Great Amir, from the Arabic life of Ahmed ibn Arabshah, London 1936,161; Fischel:1956,229.

(107) For a discussion of the permutations in the meaning of the *nisba* see Encyclopaedia of Islam, new edition IV, Leiden 1978,180.

(108) A pot-bellied ewer previously in the Topkapu Saray inv.no. 2/2160, now in the Türk ve Islam Müzesi, Istanbul, signed and dated on the underside of the base Shir 'Ali ibn Muhammad Dimashqi Jumada II 872/December 1467: Mayer:1959,83, pl.XIV, Komaroff:1979-80,15 n. 12, and fig.4; 12; Melikian-Chirvani:1982,231,245 n.7.

(109) This interpretation is also that of A.A. Ivanov, "Gruppa Khorasanskikh mednuikh i bronzovuikh isdeliy vtoroy polovinu XXV v," Trudy Gosudarstvennogo Ermitazh 7 1969,163; see also Mayer:1959,17, 83; and Melikian-Chirvani:1982,231.

(110) See above. It is perhaps also conceivable that Dimashqi may refer to the technique of inlaying metal that was referred to in the West as "damascened", "*alla damaschina*", "*d'ouvrage de Damas*" or "*facon de Damas*"; see Gay:1887,533-4.

(111) Inv.no.11,53, described as "Azzimina-Ware, Venedig 15-16 Jh."

(112) British Museum, inv.no.1962 7-18 1, Appendix I no.9.

(113) Komaroff:1979-80,12-13, n.19,20,22,23,24,25.

(114) Appendix figs T9 TH2a, TH2b T10a and b TH2d TH2e.

(115) Cellini, for example, was employed by Francis I of France in 1537 and in 1540-45; he refused to go to England with Torrigiano on the grounds he could not work with the man who had broken Michelangelo's nose (Bull:1956,30-31). Torrigiano worked in England from 1511-18 and again c.1520 in Westminster Abbey on the tombs of Lady Margaret Beaufort, Elizabeth of York and Henry VII.

(116) Österreichisches Museum für Angewandte Kunst, inv.no.G0.81; Atil, Chase and Jett:1986,178,fig.63 (cat.no.197).

(117) For a discussion on the form of salver with a central omphalos or umbo, see Allan:1986,42-47, and Chapter 3 Part I Section 4 below.

(118) Encyclopaedia of Islam ²,558-561; see too Kühnel:1977.

(119) On the use of the circle as a basic measurement in Islamic design see Humbert:1980,10-13,31; el-Said and Parman:1976; Critchlow:1976. Whether or not there is some underlying meaning to the use of the circle is the subject of a debate which is of no concern to this study; see Ardalan:1973, Critchlow:1976, Burckhardt:1976.

(120) These properties of Islamic geometric design are wonderfully demonstrated on the dome of the Shrine of Shah Ni'matuollahi in Mahan, Iran (Burckhardt:1976,pl.82). Not only does the size of the

motif vary according to the swell of the dome, but each element is given equal emphasis. Is the intended focus the blue stars or the geometric linear motif, that leaves the stars in reserve? The delight in a visual puzzle is further demonstrated by the borders of stylised *kufic* epigraphy on the walls of the Shrine.

(121) For a discussion and drawings of the gothic elements in "kuficising" inscriptions in the work of the Italian painter, Gentile da Fabriano, see Auld:1986.

Chapter 3

The Objects

Section 1. General comments

Before breaking down the "Veneto-Saracenic" pieces into their component motifs, a short discussion on the type of objects found in this style will demonstrate their intrinsically domestic character. Although technically exquisite in many cases, the pieces are small and relatively unspectacular. The amount of precious metal used in their decoration is not large, an aspect already discussed in Chapter 2. However, the nature of the fine inlaid and incised motifs, which represent many hours of painstaking work, as well as the contemplative aspect to their design, indicates they were intended for a *cognoscenti* market. They appear to have been for use rather than display, despite a certain anomaly in the shape of, for instance, the hemispherical boxes or bowls with flat lids which are remarkably unstable, and in the comparatively fragile nature of the precious metal inlay. In other words, although intended for domestic use, they were for a rich man's table rather than a poor man's kitchen. The overall group includes incense burners, bowls and covers, salvers, ewers, candlesticks and a small assortment of oddments whose use is conjectural. The categories will be treated one by one.

Section 2. Incense burners. (Plates 43,48)

This section is entitled "incense burners" although the function of these objects has been disputed and they are catalogued in museum collections as either handwarmers or incense burners. Until Dr Schiedlausky's recent monograph entitled Kühlkugel und Wärmepffel, they had been treated only in a brief way in reference books and compendia, although a slightly fuller account by Dr Beard was published in 1940. They appeared in studies by Dr Thwing in 1959 and Dr

Philippovich in 1963 and 1966, who both agreed with their predecessor that there were few grounds for distinguishing between the two functions, an opinion which Dr Schiedlausky shared.

In Europe from the 12th century onwards, there are references in texts to *calefactorium*.⁽¹⁾ These "heat-makers" are thought to be the spherical metal objects found in church treasuries with an internal suspension system consisting of concentric circular rings. The innermost ring supports a central cup or, more unusually flask, to hold charcoal or oil which could be lit to provide a means of warming the hands (pl.49). This suspension device is commonly called the "Cardan system", after its supposed inventor, one Geronimo Cardano, a Professor of Medicine and Mathematics in Pavia, Milan, Bologna and Rome (1501-1576). In 1550 his book *de subtilitate libri XXI* described a carrying-chair fashioned for Charles V, which was suspended in supporting rings. Cardano was not, however, the inventor, for the system was described as early as 230 BC by Philo as a device for a spill-proof inkwell. Chinese objects using a similar system are known from 140 BC.⁽²⁾ Even in Europe, Villard de Honnecourt illustrated the system in about 1235, labelling it "*escaufaile de mains*".⁽³⁾ Villard explained his drawing with the words "*Q(ue) se v(os) voleis faire .i. escaufaile de mai(n)s, vos fereis ausi come une pume de keuvre de .ij. moitiés clozeice. Par dedens le pume de keuvre doit avoir .vi. ciercles de keuvre; cascuns des ciercles a .ij. toreillons, (et) ens, en mi liu doit estre une paelete à .ij. toreillons. Li toreillo(n) doivent estre cangiet en tel manière, q(ue) li paelete au fu demeuret ades droite. Car li uns des toreillons porte l'aut(r)e (et) se v(os) le faites à droit si (com)me li letre le v(os) devize (et) li portraiture, torner le poes quel part q(ue) v(os) voleis, ia li fuis ne s'espandera. Cis engiens (est) bons à vesq(ue); h(ar)diement puet estre à grant messe car ia ta(n)t come il tiegne cest engieng entre ses mains froides nes ara, ta(n)t co(m) fuis puist durer; en cest e(n)gieg n'a plus. Cis engiens est fais p(ar) tel manière quel p(ar)t q(u)'il tort ades(est) li paelete droite"* (Hahnloser:1972,49 ff). This can be freely translated as : "When you want to make a hand-warmer, you make it

also like a copper apple ("*pomme*")⁽⁴⁾ closed by two halves. The inside of the copper apple must have six circles of copper; each of these circles has two pivots⁽⁵⁾ and inside, in the middle must be a bowl with two pivots. The pivots must be alternated in such a way that the bowl always stays upright. Because one set of pivots carries another and if you make it correctly as written and drawn, you can turn it whichever way you wish, and it will never spill. These contraptions are good for a bishop; he can be of good heart whenever he is at High Mass, because as long as he holds this contraption between his hands they will never be cold as long as it (Mass) lasts; there is nothing more to this contraption. This contraption is made in such a manner that whichever way it turns the bowl (remains) upright." His drawing shows six concentric suspension rings. Two or three supporting a central container seems the norm, to judge by those illustrated by Dr Schiedlausky and by the examples presented in this study. In about 1500, that is fifty years before Cardano published his book, Leonardo da Vinci too made a drawing showing the system, this time used to suspend a maritime compass.⁽⁶⁾ In the present study, the term "gimbal" is used.

The purpose of the suspension system, or gimbal, as Villard recognised, is that whichever way a sphere is held or rolled, the central container holding a hot or burning substance remains upright, so that it does not spill. The hand-warming spheres were used primarily by priests officiating at High Mass to avoid dropping the Host in the freezing conditions of unheated churches. Villard specifically alluded to their use by a "*vesq(ue)*" or bishop. To drop the host would of course have been sacrilegious for those holding the Doctrine of Transubstantiation.⁽⁷⁾ As far as is known, according to Dr Schiedlausky (1984,24) the first use of the word *pomum* to mean a hand-warmer was in 1214 in the Inventory of Salisbury Cathedral (*pomum unum argenteum ad calefaciend. manus*). The early references to *poma* are always in a religious context, as objects for use during Mass or in connection with the altar. Their function seems to have extended from a practical one as a handwarmer to a more general cultic one, as a precious object suitable for inclusion in the display

of wealth of a church treasury (1984,23). If the objects detailed in the present catalogue were indeed intended for use as hand-warmers, either made in the West or imported from the Levant, the sudden re-emergence of large numbers in the later 15th-16th centuries might reflect the renewed debate on Transubstantiation which reached its climax at the Thirteenth Session of the Council of Trent in 1551, although the "Veneto-Saracenic" examples do not seem to have a religious provenance but rather to have formed part of private collections as "luxury items".

The use of the spheres, even as hand-warmers, was never confined to clerics; the inventories of court treasuries contain (admittedly rare) references to spherical objects in precious metals which were used to warm the hands. To quote but a few examples from those gathered by Dr Schiedlausky,⁽⁸⁾ the Inventory of Guy of Flanders of 1305 listed "*l pume d'argent dorée pour escoufers ses mains*", probably the same as "*une pume d'argent dorée pour mains escaufer en une custode de cuir à pocenet*" in the 1322 Inventory of Robert de Béthune, Duke of Flanders. In 1420 the Inventory of Philip the Good of Burgundy contains a reference to "*une grosse pomme d'argent doré, cizelée pendant à une chaenne d'argent doré en laquelle l'on met feu à chauffer mains*". Six handwarmers were owned by Charles V of France in 1379/1380. The use spread from the prince to the rich commoner. "*l poma da schaldare le mani d'argento, dorata, di mar(chi) l, onc(ie) l, vale fior. 10'*" is listed as belonging to two merchants from Prato and Pistoia who were in Avignon in 1360 (Piattoli:1931,250), but the distinction between the life style of the rich commoner and that of the prince was anyway becoming blurred by this period. Two inlaid spheres were in the Medici collection from the time of Cosimo I (1519-1574). These are included in the present catalogue, numbers 15 and 16.

Many of the more precious examples of the spheres have not survived, which is a common problem with objects made from gold or silver, the metal being prone to re-use for more fashionable work or coinage. Their loss is an added barrier to the proper identification

of ways to distinguish between hand-warmers and incense burners (if, indeed, any exist). Sometimes the distinction is confused by the reference itself. In 1397, a draft was sent to a Parisian goldsmith, one Jehan Clerbourg who was working in Paris from 1386-1401, "*pour deux pommes d'argent dorées toutes rondes à mettre oisellés de Chippre baillées et delivrées à la royne pour tenir ses main chaudement et faire sa volonté*" (Gay:1887,II,253). The reference to "*oisellés de Chippre*" is our main concern here.

"*Oisellés de Chippre*" were interpreted by de Laborde (424 n.22) as little figures of birds formed out of musk or amber to be burned as incense. Beard (1940,19) quoted *oiselets de Chypre* as being defined by Jacob le Duchat (*Ducatiana* 1738, Part I,39) as "*petites balottes de toutes grandeurs, remplies de parfums exquis, e qu'on joignoit ensemble avec de la gomme pour leur faire prendre la forme de certains petits oiseaux, de la peau desquels on les composoit, à fin de les faire crever à propos*". He quoted the Marie de Sully Inventory of 1407 which has an entry for "*une pomme à mettre les oyseaux de Chypre*". Dr Schiedlausky believed *de Chypre* to refer either to the place of manufacture or to the staging post for transmission from further east. In the 1420 inventory of Philip the Good there is an entry for "*une grosse pomme d'argent doré à mettre oyselez de Chipre, ouvrée à rondeaux, fait de l'ouvrage de Venize*".⁽⁹⁾ The interpretation is made more confusing by a reference by John Locke in 1533 to a "certain small bird ... like a wagtail" that was a speciality of Cyprus, where it was called the "*becaficos*",⁽¹⁰⁾ but these were a culinary delicacy and not a variety of incense. Further confusion is caused by the medals called *oselle*, which the Doge of Venice was bound by his coronation oath to give to each patrician as a New Year's gift. Until 1521 the annual presentation to each man had been five real ducks but in that year, when the number of waterfowl needed had risen to nine thousand, the Doge was granted permission by the Senate to distribute silver medals in their stead, called by the Venetian "birds" because of their

antecedents. The design of the reverse of these medals changed each year and usually referred to a notable event that had occurred in the previous twelve months (Honour:1971,105).

Despite the frequency of reference in mediaeval inventories to the spheres as "hand-warmers", the objects are referred to here as "incense-burners" because it is apparent from the decoration of the majority of pieces listed in the catalogue that they were made in the Levant. And their use in the Islamic world seems to have been primarily one of burning a substance for the purpose of thurification. The Sicilian, Ibn Hamdis (1056-1121), wrote a poem in praise of his Tunisian patron, one Prince 'Ali ibn Yahya, who ruled al-Mahdiyya from 1116-1121.⁽¹¹⁾ In it the poet spoke of a sphere hiding three circles "from the eyes of the vulgar", from the centre of which burning incense produced aromatic vapours. Ibn Hamdis described the sphere rolling across a silken carpet before the prince, who, by association, is himself emitting sweetness and light from the focal point of the globe (presumably the universe, that is the prince is being likened to the sun).⁽¹²⁾ Not only does this passage describe the function of the object; it also assigns it to a princely context. The use of incense in Islamic social life was not confined to the prince, however. Professor Aga-Oglu's account (1945/1) of the origins of thurification and its widespread use stressed its longevity, as well as demonstrating the use of aloes and sandalwoods for the purpose. It will be remembered that aloes wood was one of the recurring gifts to European princes from Mamluk Egypt (Chapter 1, Section 3). The incense burners themselves were called, said Professor Aga-Oglu (29), in Arabic "*mijmar*", in Persian "*ud-suz*" and in Turkish "*bukhurdan*", adding in n.14 that "another frequently used Arabic term is *mabhkara*".

In Arabic and Persian the name for a vapour or exhalation, specifically rising like smoke from something that is hot or damp, is *bukhar* from the root *ba kha ra* (Lane I,158-159; Steingass,159-60); the term for the substance that gives off the vapour or incense, "*bakhur*", itself synonymous with aloes-wood. The root is found in

the form of a verbal noun on a little basin in the Islamic Museum, Cairo (inv.no.3335, Wiet:1932,82-84,pl.XXVII). Here an inscription reads "There is no God but God; Muhammad is His Prophet; Abraham is beloved by God. This blessed incense burner ("*mabkharat*") was made by order of our Master the Sultan al-Malik al-Zahir Muhammad". Dr Wiet commented that the form of the basin, which has a diameter of 12 cm. and a height of 4 cm., with a flat base and walls that rise at a steep acute angle to the lip, would not immediately suggest its use as an incense burner. One possibility is that it was used not to hold a burning solid substance but, in view of the association of the meaning of "*bakhur*" with fumes or smoke, to hold a liquid. The flat base of the basin would make it a suitable shape to rest on a small brazier in order to heat it. But this must remain speculation until further evidence is found. Indeed, it is unusual for an object to be so conveniently labelled. It must date, according to Wiet, to the reign of Sultan Jaqmaq (died AH 857/1453) because of the titles that appear on it.

The root *ba kha ra* appears once in Firdausi's *Shah Name*.⁽¹³⁾ Here the more usual word associated with incense, aloes wood in particular, is '*ud*'. Used in conjunction with *suz* it seems to denote the process of burning incense. Dr Wolff found '*ud*' appearing sixteen times in the *Shah Name* (Wolff,597), '*ud-soz*' twice or perhaps three times,⁽¹⁴⁾ while Dr Melikian-Chirvani cited one further instance in the Mohl manuscript, IV p.664, where "it refers to someone who is burning aloe wood"(1982,43 n.1). However, as far as I am aware, the word does not appear on any object. In 1982 Dr Melikian-Chirvani referred to incense-burners as '*uz suz*' only, except one occasion (p.43 n.1) where he reported that the author of an Arabic-Persian dictionary of the 14th century "records the word as the Persian equivalent of Arabic *mijmar*, incense burner". This last form is particularly interesting. Lane (Bk I,V,452-4) included among its meanings an association with braiding or knotting. In *Taj al-'Arus* "*mujmir*" is "one who collects together his hair and ties it in knots or makes it knotted and crisp at the back of his head". The associated meaning may explain the frequency of knots or

braidwork as a decorative motif on the Islamic spheres, just as another Arabic word for knot, *'uqdat*, with its associated meaning of planetary node, may also be connected. This is discussed here in Part II, Section 1.

The difference in climate between Europe and the Near East makes the hand-warming function of the spheres unnecessary in most of the Islamic world. It is possible that the European use of the spheres as a heat-source is a by-product of their earlier use as incense-burners, for the T'ang prototypes (7th-9th centuries) were not only small but were suspended by a chain. Presumably hung on a hook, they were made to rotate in a draught and, it is further assumed, to burn incense (Gyllensvärd:1971,figs.44a-b). Their original use as incense burner is likely to have been transmitted westwards, a hypothesis backed by the lines of the poet. Their popularity in the Islamic world, indeed, seems to begin with the advent of Il-Khanid rule, and may well therefore reflect an East Asian mode. The two earliest extant Islamic examples known to me date from 1270-1 and a third from 1293⁽¹⁴⁾ (Appendix II nos.1,7 and cat.no.42).

The pictorial iconography of the decoration on Islamic incense burners is also courtly and, by extension, cosmic. The most famous example is probably in the one in the British Museum (Appendix II no.1), which was made in about AD 1270 of pierced brass inlaid with silver. At the top is a suspension hook in the centre of a medallion, which is pierced and decorated "with an arabesque formed by five double-headed eagles and lion-headed masks" (Atil:1981,58). It is worth noting that four eagles, here with a single head and in cusped quatre-foils, appear in a similar arrangement around a central "sun-disc" on the lid of an ivory casket in the Victoria and Albert Museum, which was made for the Umayyad Caliph of Spain, al-Hakam II, between AD 961-976 (inv.no.217-1865, Beckwith:1960,fig.45). Around the medallion on the incense burner runs the inscription "Badr al-Din Baysari (officer) of al-Zahir al-Sa'id al-Shamsi al-Mansuri al-Badri". Double-headed eagles also appear in five roundels in the main band of decoration, which are interspersed with small

unconnected roundels filled with geometric stars made from six-legged "swastikas". The swastikas are not inlaid but are engraved into the brass, so that, in contrast to the other black and silver inlays, they give the appearance of gold - a colour appropriate to their ancient solar symbolism. Similar six-legged swastikas appear on a sphere in the D.S.Rice Archive no.169/22, (Appendix II no.11) the present location of which is unfortunately unknown. Here the device forms the central motif and it appears again in loops formed by the fillet border, interspersed with a lotus motif. Among many other appearances, it appears on a 13th century candlestick base, (British Museum, inv.no.1866 12-29 62; Baer:1983, fig.158), in the centre of a roundel interrupting the main epigraphic frieze. Round it runs an arabesque border, each scroll surmounted by a flying duck (compare my fig.30b). The swastika features again on a pen-box signed by Mahmud ibn Sunqur dated AH 680/1281 (British Museum inv.no.1891 6-23 5; Baer:1983,fig.163) where again it appears in conjunction with an animal scroll, sometimes called a "*waq-waq*" tree; and as a ground decoration on an inlaid bowl of the 14th century (Berlin, Museum für Islamische Kunst, inv.no.920; Baer:1983, fig.144) surrounding cusped roundels, each with fighting quadrupeds.⁽¹⁵⁾ It is noticeable how frequently the appearance of this hexagonal radiating device coincides with an inhabited animal scroll, which may aid the interpretation of the motifs, for both have cosmic overtones.⁽¹⁶⁾ Dr Allan found similar solar or cosmic overtones in the decoration of the spectacular incense burner now in the Nuhad es-Said collection (Allan:1982,86-89,no.15), in particular the association of ducks (or geese) in pairs, lotus and swastikas. Fat lotus buds replace split palmettes in the background arabesques of the London incense burner, and also act as terminals to the snake-like collar of the double-headed eagles. Indeed, here the ambiguity between snake-head and lotus bud is pronounced. They appear in a similar context on the Fano Cup, where a lotus scroll surrounds a central six-legged swastika (Rice:1955, Ettinghausen:1957,fig.V). As Dr Allan pointed out (88), although no supporting text is known, the predominance of the lotus in association with proven solar imagery inexorably leads the viewer to the belief that the Chinese understanding of the symbol

was also current in Mamluk Egypt and Syria. Work in this field is only now beginning and it is not possible here to do more than underline the need for further study.

The double-headed eagle has apotheosis overtones⁽¹⁷⁾ and is frequently shown with a griffin-like head. Although used by Mamluk sultans as a blazon, as for instance on another spherical incense burner in Florence, (Bargello Museum, inv.no.Bronzi 370C; Appendix II no.7), it is also a solar image. The heraldic eagle was used in the 12th and 13th centuries AD in Syria and Anatolia as an imperial symbol. Zengid and Artuqid coins bear the symbol and it appears on the walls of Cairo, namely the citadel of Salah al-Din, on a stone relief in Konya Museum and on the city walls of Diyar Bakr (Sarre: 1904, 18 ns 3,4,5, fig.15) to name but a few. However, on the British Museum sphere it is used not as a personal blazon but as a decorative motif.

The griffin heads of the eagle on the London incense burner underline the solar associations of the image, and, by extended analysis, the princely status of the patron. The griffin is a cross between an eagle and a lion, both of which are recognised as not only solar but royal creatures (Ettinghausen and Hartner:1964). The princely associations of the spherical incense burner are further illustrated by an example in Turin (Museo Medievale, inv.no.327/B, Appendix II, no.10). Here four roundels decorate both sections of the sphere; the top has an apotheosis figure similar to the figure borne aloft in the Cappella Palatina discussed in note (17). The corresponding roundel of the lower half has a variant of the same motif but with the arms of the figure outstretched. The other roundels contain, on the top, (1) a figure on horseback attacking a quadruped; (2) two figures on an elephant; (3) four birds (perhaps geese) with interlaced necks.⁽¹⁸⁾ The motifs on the bottom half-sphere are related. They are (1) an elephant; (2) a horseman with a hawk; (3) birds (perhaps geese) with knotted necks. The ground of the incense-burner is decorated with an animal scroll or "*waq-waq*"

arabesque interlace. The heads inhabiting the stems are, among others, those of harpies, human-headed quadrupeds (probably sphinxes) and ducks.

In view of the presence of a cosmic and princely iconography in the figural decoration of spherical incense burners, it would be a neat progression to see the same iconography in the non-figural representation of the "Veneto-Islamic" spheres. Some justification for at least a planetary association could be claimed in view of the knots and braids, geometric interlace, and lotus scrolls. It is noticeable too that the piercing of the spheres tends to cluster around the knots or roundels. Although the link is somewhat tenuous, the points of light shining through the holes must have recalled the silver points marking the fixed stars on brass celestial globes, like the one signed by Muhammad ibn Mu'id al-'Ard dated 1278 in Dresden, or the larger globe made by Ja'far ibn 'Umar ibn Dawlat-Shah al-Kirmani in 764/1363 (Pope and Ackerman:1938,2518,pl.1403). Unfortunately, however, it is difficult to claim a specific cosmic meaning to the decoration because the same motifs appear on our next category of objects, the hemispherical bowls with flat lids.

Section 3. Boxes and covers Plates 1-2,10,26,figs 80-82.

(i) Hemispherical boxes. One of the most immediately recognisable shapes in "Veneto-Saracenic" metalwork is a small, hemispherical bowl or box, with a flat or slightly domed lid (cat.nos.59-144). As far as I know, the shape occurs elsewhere in Islamic metalwork only in earlier or in later periods. The closest comparison is a bowl in the Victoria and Albert Museum, which Dr Melikian-Chirvani thought dated to the 18th-19th centuries.⁽¹⁹⁾ Even this bowl is different in one fundamental respect - it has an internal central boss which is reflected on the exterior by a slightly flattened base. It therefore rests comparatively securely and remains upright on a flat surface. It is a characteristic of the "Veneto-Saracenic" bowls that they do not stand steadily but tend to tip sideways. It is

possible that some kind of support was used, such as a metal stand, but none of the bowls shows any sign of the wear which might indicate such a support, nor is one known to exist.

The predecessors to the hemispherical boxes are hard to determine. The rounded shape and concomitant instability would seem to have been present in an earlier type of bowl, to judge by an illustration published Ettinghausen of a large brass bowl in New York.⁽²⁰⁾ Another big bowl of a similar shape was, like the Kevorkian example, found in Afghanistan and is now in the Kabul Museum (Ettinghausen: 1957, fig. 10). There is a further example of this type of bowl in the Aron Collection (Allan: 1986, 124-125, no. 31), with a sharply everted rim. These two examples form a link with the "Veneto-Saracenic" hemispherical objects in more than just shape. The Aron piece shares with a bowl which belonged to Dr Ettinghausen a sort of false gadrooning, designed in the form of a series of incised arcades around the body. This type of division of the decorated surface into equal "rays" is found on one group of "Veneto-Saraceni" incense burners (cat. nos 5, 9, 12, 46, 58 bottom), which of course all have the same hemispherical contours. Another feature of the Aron bowl reappears on the boxes and incense burners of the present study. A series of six interlaced circles (fig. 57, 58, 59a) fill the central roundel from which the arcades emerge. The Ettinghausen bowl is also close to the most common type of "Veneto-Saracenic" bowl in that it has a pronounced moulding under a flat rim (1957, figs. 15-17). Moreover, it has a central motif incised on the interior that could be seen as a forerunner of the motif of six fish converging on a central point found in many of the bowls and lids of the present study (pl. 40, fig. 56). It is in the form of a whorl, joined at the centre, made up of six legs which each terminate in an oddly ambiguous head, either of a bird or a fish. Behind the "legs", two pairs of incised concentric rings are ruled. In the interstices created between the "legs" and the circumference of the rings, there appear one large and three small circles in the form of a triangle, each with a punched central point. The eyes of the ducks' (or birds' heads) are also formed from a circle with a central punch-mark. And

a similar device is found on one of the "Veneto-Saracenic" boxes in the Aron Collection (Allan:1986,98-99, no.15 cat.no.136). However, the Ettinghausen bowl is larger than the examples collected here, being 21.6 cm. in diameter and 10.8 cm. high, and it does not have a cover, nor is there a mark on the inside to indicate that one ever existed. Although the Aron bowl no.31 is similar in size to the "Veneto-Saracenic" objects (height 6.5 cm., diameter 13.7 cm. to 14.7 cm.) its everted rim probably eliminates the possibility of it too ever having had a cover. Moreover, these comparisons do not help with the problem of the immediate forerunners of the "Veneto-Saracenic" bowls, for Ettinghausen believed the Afghani bowls, and therefore the others examples too, to date from the 12th century.

The rounded profile continued into the 13th century, in the form of stemmed cups or bowls, the most famous examples being the "Wade Cup" and "Vaso Vescovali";⁽²¹⁾ Rice believed a late stage of the development was represented by the Peytel Cup, for he dated this particular example to the mid-14th century (1955/2,16). Ettinghausen, however, questioned the reasoning for the late date (1957, 340), preferring to see it too as 13th century or, at latest, early 14th century.

In fact, the bowls of the present study that have no rim (here designated as Type B) are closest in profile to the spherical incense burners. Not only are they the same shape, they share a decorative scheme⁽²²⁾ and it is therefore tempting to see the two types of object as being manufactured not only in the same workshops but also for a related purpose. The extremely unstable nature of the bowls would make them unsuitable for liquids. The tightly fitting lid makes them difficult to open, but airtight. The beauty of the design is seen most clearly in the flat circle of the lid. Could it be that these bowls were used to hold the incense to be burned in the pierced spheres, perhaps even the mysterious "*oiselets de Chypre*"? The correspondence between the designs would have been particularly well appreciated if the two types of object were displayed together.

Another possible use for the bowls and covers is that of sweetmeat container. Lane-Poole (1886/1,452) referred to them as "sherbet bowls". It will be remembered that spices, balsam and "*confectione*" were among the diplomatic presents brought by "Malfet" to Lorenzo il Magnifico in 1487 (Chapter 1, Section 3). If it is right to see the reason behind the bilingual signature of Mahmud al-Kurdi on the Courtauld box (cat.no.65) as a diplomatic contact, it seems feasible to assume that it was the contents rather than the box itself that were of value (Chapter 1, Section 4). Perhaps the purpose and origins of the covered bowls will one day become clear but in the meantime the arguments are purely speculative. It is not even possible to be sure of the correct terminology for the bowls in Arabic or Persian. Although *jam* appears on the later bowl in the Victoria and Albert discussed above (inv.no.24-1889, Melikian-Chirvani:1982,348, no.163), we have already eliminated the likelihood of the "Veneto-Saracenic" hemispherical boxes holding liquids, which reduces the appropriateness of this term, which seems to be confined to a drinking bowl held in the hand. *Tas* is the other term used for a rounded bowl, here "large bowls with low rounded sides" (Melikian-Chirvani:1982,401).

(ii) Cylindrical boxes and covers. There is another form of covered bowl that features in "Veneto-Saracenic" work. This bowl, or here more properly "box", is circular with a flat base, the walls usually rising at 90° (cat.nos.145-154). The cover is the same form as the box, its walls being only slightly lower. Box and cover meet without external overlap, the walls of both thus forming a perfect cylinder (pl.50). The same shape is found in Chinese metalwork. A cloisonné enamel cylindrical box dated to the 15th century in the Garner collection (Soame Jenyns and Watson:1980,129 no.88) has the same relationship between cover and box, although its diameter is slightly smaller than the objects in the present catalogue, being 8 cm. whereas the "Veneto-Saracenic" objects vary between 10.5 - 12.3 cm. The cylindrical box also appears in Chinese lacquer-work of a similar date (Soame Jenyns and Watson:1980,188 no.141, 209 no.152). One Ming blue-and-white porcelain box of the same shape, which has

medallions with pious inscriptions in Arabic script and is therefore thought to have been made for the Muslim community in China, has the mark of Chêng-Tê on the base (Lion-Goldschmidt:1980,254,no.194, Arts Council of Great Britain). Chêng-Tê ruled from 1506-1521, his mark thus supports the hypothesis of a slightly later date for the inlaid metal cylindrical boxes on stylistic grounds.

One flat-bottomed box in the Victoria and Albert Museum (inv.no. 915-1884, cat.no.146, pls 39 and 40), the only example of this shape known to me, has straight walls that slope gently inwards to meet a flat lid with a pronounced overhang. This particular box features lotus blossoms and knots (fig.53) in a concentric arrangement, its overall appearance making it probable that it was made either in a Mamluk workshop in the last years before the Ottoman conquest in 1517, or, perhaps more likely, later, under Ottoman rule.

Here again the function of the boxes is conjectural. The similarity in size and decoration to the hemispherical boxes makes it likely that the cylindrical version also contained sweetmeats or some such delicacy for the table.

Section 4. Salvers

Plates 7,15,20-2,41,51.

I use this term in a general sense to cover five different forms of broad, shallow, circular objects. These forms are discussed individually below.

In "On Phialae in the Islamic World" (1986,42-47), Dr Allan has recently traced the continuance of the Classical Greek and Achemenid phiala into the corpus of mediaeval Islamic metalwork. Phiala is "the name given in the ancient Greek world to a bowl with a central *omphalos* or umbo" (1986,42) which were used to offer libations. The wine was poured from a jug into a phiala, from which it was tipped onto the ground. The central umbo served as a grip so that the bowl could be tilted with full control, as well as allowing it to be carried safely, by hooking the two middle fingers of the right hand

into the concave underside of the boss (1986:fig.29). In the Roman period the bowl was called a *patera*. Dr Allan knew of no Byzantine examples, but bronze Spanish pieces are extant which, coupled with the existence of a Fatimid example of 11th-12th century (Allan:1986, fig.31) would suggest that the form continued uninterrupted in the Mediterranean countries. One development seems to have been towards a type of Islamic "magic-bowl" (1986:43,108-109, Aron no.2), which need not concern us here. The other development is relevant to a number of pieces in the present catalogue, whose function seems to have been either liturgical or domestic in the Western world, while in the Islamic countries such salvers were either used for food or to catch the water poured from a ewer during ablutions.

This form, which is wider and flatter than the Islamic "magic-bowl", continued into the Christian period, being used in pairs during Mass for ritual ablution. The enamelled *gemellion*, manufactured in Limoges in the mid-13th century, is related to these salvers. Variants appear too in "Veneto-Saracenic" inlaid metalwork, their characteristics being (a) a six-lobed central umbo and a narrow rim⁽²³⁾; (b) an eight-lobed central umbo and narrow rim⁽²⁴⁾; (c) a five-lobed central umbo and broader rim⁽²⁵⁾. There is also a deeper dish, with a narrow rim, probably related in function to the salvers already described⁽²⁶⁾. Another variant has a central umbo that is not lobed and a broader rim⁽²⁷⁾. The broader rim probably denotes a different function, possibly for food or to catch water, for it is impossible to pour accurately over a wide flat surface. Also with a broad rim are the salvers with a flat base and gently curving cavetto; these examples include those I believe to have been manufactured in Europe to an "Islamic" pattern, for example the salver in the Walters Art Gallery "signed" by Mahmud al-Kurdi, discussed in Chapter 1, Section 6.⁽²⁸⁾ The last type of salver is represented by the three trays signed by Mahmud al-Kurdi,⁽²⁹⁾ which were in all likelihood made to hold food.

(i) Salver with a central umbo and narrow rim. A slightly deeper version of the salvers (a) to (c) above, with a central boss in the form of a six-foil, was exhibited in Paris in October 1981-February 1982. There were two basins on display, one from Paris, one from Leningrad (Donzet and Siret:1981,256-257, nos.206 G,K). They are thought to date to the first part of the 14th century and the central rosette in each case is repoussé, each petal marked by a heavy central rib. An example of the form even closer to the inlaid salvers of type (a) is to be found among the ablution basins that once belonged to Prior Chillenden of Canterbury Cathedral.⁽³⁰⁾ These silver-gilt basins feature a six-foil as a central boss. Each "petal" alternates with a pointed dart or "sepal", so that the umbo has the appearance of a six-petalled rosette backed by a calyx. The boss has no central recessed disc. The basins are listed in the inventories of Canterbury College, Oxford of 1459, 1501 and 1510 as the gift of Thomas Chillenden, who was Prior of Canterbury Cathedral from 1391-1411. Presumably it was when the college ceased to exist in about 1539 that the basins entered the treasury of Canterbury Cathedral (Oman:1980). The date of the silver-gilt basins is thus earlier than that given to a similar object in the Museo del Bargello by Dr Spallanzani (inv.no.350C, Spallanzani:1985), although here there are no "sepals" between the six cusps. Dr Spallanzani's researches in the Venetian Archivio di Stato led him to solve the question of the dual arms of the Venier and Molino families, which appear in the centre of the salver, as those belonging to Marco di Antonio di Marco Venier and the daughter of Maffio di Filippo Molin, who were married in 1460. This date corresponds to one given to the object on stylistic grounds by Rice (Rice:1953,497). Although there are no signs of alteration on the salver, Dr Spallanzani recognised the possibility of adding arms to an object made for the open market rather than being manufactured to a specific commission (1985,471 n.7). The same six-foil boss with no "sepals" is found on another salver in the British Museum (inv.no.1878 12-30 708). This particular salver has a blank central shield; it features lotus blossoms and, in three of the panels running between roundels in the base, a repeated inscription with pincer-topped *hastae*, which reads "al-

'ala'i al-ma'alili(?) al-".⁽³¹⁾ The frequent occurrence of pincer-topped *hastae* on metalwork dating to the reign of Sultan Qa'itbay has already been noted in Chapter 2, Section 3(D). This would thus reinforce the date of the later 15th century proposed for the "Veneto-Saracenic" salvers.

A six-lobed rosette, albeit in recess, decorates an alabaster paten in the San Marco Treasury in Venice, probably dating to the 11th century. In the centre is an inset enamel disc of Christ blessing and holding a jewelled Gospel Book (Buckton:1984,168-170, no.18). Another paten, thought to date from the 12th century, this time English, has a similar recessed six-foil with an engraved figure in the centre of Christ in Majesty.⁽³²⁾ It is therefore possible, in view of the frequent use of the motif, that the lobed rosette had some symbolic significance, although the number of the petals does not remain constant. The salvers of type (b) have a central boss with eight lobes. None of the examples listed in note (23) have sepals between the lobes, nor do they have a central recess. However, another type (c), with a central umbo in the shape of a five-lobed rosette, has both a recessed disc and intervening sepals. It also has a wider rim than the other examples cited so far⁽³³⁾. It is probable that the origin of the salver with the central cusped umbo lies with Byzantine liturgical objects but whether the continuing manufacture of the objects in the Mamluk world was exclusively for Western use is not known.

(ii) **Salvers with a central umbo and wider rim** While a wide rim is usually associated with European salvers, I am reluctant to assign all salvers with a broad flat rim to a European workshop for this reason alone for the reasons already listed in Chapter 1, Section 5. The flat rim changes the function of the objects from that of pouring receptacle to container, for it is hard to control liquid over a broad rim. We have already seen the shape used as a paten, that is a salver to hold the Communion Wafer. Salvers of this type are today also used as collection plates in a religious context; originally their function was not only practical but also aesthetic, as a

form of visible display of wealth. This use was apparently common too in European princely circles, where valuable objects were paraded on shelf or table to impress the guests,⁽³⁴⁾ as well as used as part of a dining service. It is probably to this last group that large salvers which prominently display coats of arms in the centre belong, such as Victoria and Albert, inv.no. 258-1894, which has a maze *impresa* in the centre,⁽³⁵⁾ or Courtauld inv.no.44, cat.no.176 already discussed in Chapter 2, Section 3F in relation to Benvenuto Cellini's remarks on decoration. This last example retains a residual umbo, while the Victoria and Albert salver marks the centre only by its decoration. The Walters Art Gallery salver (inv.no. 54.527 cat.no.163) with the "signature" of Mahmud al-Kurdi has a central shield of the cartouche variety with an unidentified emblem on it in the form of a leopard's head. These were all, I believe on stylistic grounds, made in a European workshop. However, one example in Florence (Museo Nazionale del Bargello cat.no.172) and another in London (British Museum inv.no.1891 6-23 7 cat.no.175), both of which have a broad rim, are assigned to a Mamluk workshop on stylistic grounds. However, whether or not they were made specifically for the Western market is not known.

(iii) Deeper salver with narrow rim. This is probably more properly called a dish, having a deeper well. One example was dated by both Sarre and Martin to the 15th-16th century, however Sarre assigned it to an "oriental master" while Martin thought it was Venetian.⁽³⁶⁾ In the case of this particular example, it seems probable that Martin was right; for not only are the lemon-shaped medallions on the base of the dish unconnected to each other or the overall design, but where knots appear they do not conform to an Islamic mode. On the base they fill ogival trefoils and on the cavetto they appear in wrongly-proportioned oblong medallions. Here they attempt to emulate the knotted *hastae* of residual kufic inscriptions (compare fig.6a). However, not only is there no base-line to the "inscription" from which the *hastae* can rise, but the knots are the guilloche type, which are not normally found in this position (figs 1a and b K1A and K1B). Moreover, the triangular terminals of these

"inscriptions" bear no resemblance to the usual form which is derived from the letters of the name Muhammad. Recently a similar salver or dish was sold on the art market as "Veneto-Saracenic tinned copper".⁽³⁷⁾ While the figural elements as well as the metal of this dish place it outside the remit of the present study, it is useful as an object with a form comparable to the Sarre/Martin salver. The form is also reminiscent of a dish formerly in the Kevorkian Collection and now on loan to the Victoria and Albert Museum (Melikian-Chirvani:1982,243, fig.64); this dish too has figural decoration which in turn links it to the dated example in the Victoria and Albert (inv.no.374-1897; Melikian-Chirvani:1982,251-2,no.110 my fig.76). The dish bears the date 902/9 Sept-ember 1496-30 August 1497) and has already been discussed in the present study in relation to the work of Mahmud al-Kurdi. Although both the Victoria and Albert examples are shallower than the Sarre/Martin dish, the term *tabaqche* would probably be the correct designation.⁽³⁸⁾ A similar shallow basin or deep salver appears in Netherlandish paintings as a symbol of the Virgin's purity.⁽³⁹⁾

(iv) The last type of salver is that represented by the flat tray with perpendicular walls, three examples of which, signed by Mahmud al-Kurdi, have been dealt with already in Chapter 1, Section 6.

Section 5. Candlesticks Plates 11,12,13,53.

Two distinct types of candlestick have traditionally been assigned to the "Veneto-Saracenic" corpus. One is small, with a straight shaft, a flat shoulder and flaring, bell-shaped base (pls 11-13). The other is a composite candlestick, with a baluster stem, concave shoulder (or drip-tray) and bulging body (pl.53). Both forms were made in more than one piece, the shaft screwed or soldered into the main body. While the bell-shaped candlesticks with straight shafts conform to the Mamluk mode of decoration without exception, those with baluster stems and bulbous bodies are European. It is noticeable how many of the former variety bear European arms,

however (indeed, only four bell-shaped candlesticks do not carry a shield either with or without arms, and of those four only one has a straight shaft). There is a substantial corpus of these little candlesticks which have representational decoration, usually consisting of running beasts (Mackay Thomas:1942). These, for the reasons given in the Introduction, have therefore been excluded from the present study. The bulbous-bodied examples listed in the catalogue, on the contrary, do not have European arms. Both forms fulfil the same function of carrying candles and there is no apparent difference in the diameter of their sockets.

(i) Candlestick with cylindrical shaft, flat shoulder and flaring base. This form is comparatively common. Mackay Thomas (1942,145, figs. A and B) saw the increasing bell-shaped flare of the base as a Venetian influence but he believed still in the "colony of Arabs (who) had settled in Venice at the beginning of the fourteenth century, and from them the Venetians learned the art of making both candles and candlesticks", so more recent views cast a doubt over his reasoning. He saw too the change in decoration from figurative to floral as an indication of Venetian influence. However, the present author sees this change as part of the wider pattern of Mamluk metalwork of the 15th century. The change in form from a stumper to a taller, more slender shaft and to a more pronounced flare in the bell-shape of the base can be similarly seen as part of the pattern. The form can be traced back to the group of candlesticks now thought to be Anatolian (see Chapter 2 Section 3C). These have a short, cylindrical shaft, a socket reflecting the shape of the base and a projecting shoulder. Although here the shoulder is not separate as in the later candlesticks, and although the proportions of the Anatolian group are greater, they can be seen as the forebears of the Mamluk form. The candlesticks feature in contemporary Western art, both Netherlandish and Venetian.⁽⁴⁰⁾ As with contemporary carpets, imported from Anatolia and appearing in paintings similarly from the Netherlands, Flanders and Venice, their depiction reflects the importance of Venice as an intermediary in the trade between the Islamic Mediterranean and the Northern Europe.⁽⁴¹⁾

(ii) Candlestick with baluster stem and bulbous base. This form is Western in concept. Mackay Thomas thought the baluster stem sprang from the form of Venetian wine-glass stems (1942,150) but it is difficult to pin down the exact origins, particularly in view of the imprecise dating of both. Although in Dr Melikian-Chirvani's opinion a similar candlestick in the Victoria and Albert Museum was made in Safavid Iran (inv.no. 4301-1857,1982,321-2, no.146), the shape usually denotes a Venetian object. Interestingly, it does not feature, as far as I am aware, in 15th century European paintings. This would support the proposition for a later date upheld by the Safavid elements in the Victoria and Albert Museum example, as well as the date of 1567-1597 for the maker's mark S.G. on Victoria and Albert inv.no.4857-1858 discussed in Chapter 1, Section 5.

(iii) Candlestick with baluster stem and bell-shaped base. A form that is half-way between the type (i) and type (ii) described above has a bell-shaped base and baluster stem. This form appears in contemporary Venetian and Netherlandish paintings⁽⁴²⁾ and is probably also a Western one. Turned wood with a similar profile as the baluster stems can be seen, for example, in use as bed-posts supporting the tester of St Ursula's bed (Lauts:1962,pls 21-22).

Just as Type (i) can be compared to the Anatolian group of candlesticks, so Type (iii) can be compared to an example previously in the Stora Collection (Pope and Ackerman:1938, pl.1375A) the base of which, with its pronounced concave waist under a projecting shoulder, resembles that of a privately owned candlestick in Tehran (Melikian-Chirvani:1982,240-41, fig.63). The shaft of the Stora candlestick is apparently soldered to the shoulder, which is flat. The shaft has a central knop, and a projecting rib marks the transition from cylinder to flare as it meets the shoulder.

If the form of the Stora candlestick can be seen as resembling Type (iii) of the "Veneto-Saracenic" examples, its decoration seems to me to be Turcoman. It features both "spatial" and "linear" silver inlay against a cross-hatched ground, and is reminiscent both

of Timurid metalwork - in the epigraphic cartouches on the body - and Ottoman floral motifs - in the generosity of the scrolling stems. On the base of the shaft, one stem carries five-petalled rosettes while the other has split-palmettes subdivided by a pronounced line down the centre of each leaf.⁽⁴³⁾ This stem lies over the one bearing rosettes, a feature repeated on the border at the bottom of the base. Here the split-palmettes are drawn in outline in a "linear" technique. The socket features exuberant lotus flowers worked in "linear" inlay, and the whole aspect is freer than Timurid work. Moreover, four-petalled rosettes on the body display parallel incisions similar to those found on the Tehran candlestick, a bowl and cover in the Victoria and Albert (inv.no.563-1878, Melikian-Chirvani:1982,252-3, no.111) and the dish dated 1496-97 also in the Victoria and Albert Museum (inv.no.374-1897, Melikian-Chirvani:1982,251-2, no.110). It has already been noted that Dr Allan thought that these parallel incisions and exuberant flowers were attributable to a Turcoman school working in north-west Iran or eastern Anatolia in the late 15th century (Chapter 1, Section 6, Allan:1986,142). If it is right to see the knopped shaft and flaring, bell-shaped body as being connected to the Mamluk candlesticks with a similar body and a straight shaft, the Stora candlestick offers further evidence of the eclectic nature of Turcoman metalwork, as well as a link with Venetian objects of a similar date.

There is another group of candlesticks that relates to Type (iii). This is the so-called Ottoman "plain style" which has a bell-shaped body, a projecting saucer-like concave shoulder or drip-tray, and a knop. The central knop can take the form of a baluster. The socket often has a serrated rim, giving it a tulip-like appearance.⁽⁴⁴⁾ While the bell-shaped body and knopped shaft relate to "Veneto-Saracenic" candlesticks, the "tulip" socket is never found there, remaining a distinguishing feature of Ottoman examples. Another difference lies in the base; in Ottoman examples, two ribs encircle the bell, one near the shoulder, the other near the bottom. Moreover, the Ottoman shoulder drops in a perpendicular step before curving in to begin the bell-shaped flare. In European examples,

the shoulder remains a plate projecting out over the base. One candlestick in the Victoria and Albert Museum (inv.no.M.821-1928, Melikian-Chirvani:1982,204,no.127) has a faceted baluster and "tulip" socket. These were cast separately from the lower shaft and body, into which they were screwed.

Section 6. Buckets

Plates 32,44,57-60.

Normally described in Western museums as "holy water buckets", the Arabic term is *satl* or, in Persian, *tas-e hammam*, "bath-house bucket". The origin of the Arabic word *satl* doubtless lies in the term *situla*, a bucket-shaped vessel usually made of bronze used in the ancient world in funerary rites and in the Greek and Roman world as a libation jar. Dr Melikian-Chirvani pointed out, however, that the term does not to his knowledge appear on any object, which rather carry verses referring to wine (1982,397-98). He drew attention to the painting by Bihzad of the Caliph Ma'mun visiting a Turkish bath.⁽⁴⁵⁾ Nine vessels are depicted, three of which are clearly bath-buckets, for the handles are visible. All nine of these objects are cyma-shaped, that is the base is narrower than the opening.⁽⁴⁶⁾ None of the examples in the present study is similarly fashioned, and thus a working hypothesis would be to accept Dr Melikian-Chirvani's suggested that they were originally intended to contain wine, although there are four distinct forms, which deserve attention.

(i) Buckets with a straight, perpendicular wall, rounding to a flat base. Two of these buckets have been published, one in the Freer Gallery of Art,⁽⁴⁷⁾ the other said by Pijoan to be in the City Art Museum of St Louis, Missouri and signed by Mahmud al-Kurdi, but whose present location is unknown (see Chapter 1, Section 6, Pijoan:1949, 198,fig.264). Another was offered for sale in 1985 (Sotheby, no. 403). In each case the perpendicular walls curve gently in to a flat base. The inside wall is decorated near the rim and the bail handle is attached by brackets. The handle is in the form of a

plain hoop, unlike the majority of buckets of types (ii) - (iv), which have zoomorphic handles. However, one bucket closely related to those described above in the Victoria and Albert (inv.no.1826-1888, cat.no.244 pls 44-46 figs 61 and 63) is a hybrid. Its walls are perpendicular and curve gently into a flat base; the inside is decorated. But three ribs encircle the body, projecting slightly and subdividing the inlaid decoration into four bands. The handle is attached by brackets but is zoomorphic, being made of two affronted animal heads holding a knopped shaft in their mouths. It is signed by Zain al-Din and includes among the decorative motifs the sub-divided split-palmette typical of his *oeuvre* (fig.61).

One of the most interesting aspects of this type of bucket is that, while the decoration belongs securely to Group B, that is to the "Persian" group which includes work signed by the masters Mahmud al-Kurdi and Zain al-Din, the shape corresponds to a type of Mamluk straight-sided basin. As no Mamluk bucket has yet been published, the relationship between the form of the bucket and the basin is noteworthy. A tinned and engraved copper basin in the Madina Collection, New York (inv.no. M10, Atil:1981,106-7,no.38) has the same perpendicular walls gently curving into a flat base as do the "Veneto-Saracenic" buckets. The decoration of the basin is, however, typically Mamluk, being a series of three horizontal bands. The wide central zone has eight large roundels, each with a cusped fillet frame, between which run panels of alternating inscriptions and geometric decoration. Behind the *thuluth* inscriptions the ground is cross-hatched. Each element of the design is linked to its neighbour and the individual decorative motifs belong to the repertoire of late Mamluk metalwork (Allan:1969;1971).

(ii) Buckets with concave walls. Similar to Type (i), the buckets have a flat base and a bail swing handle attached by brackets. In every case where the original handle survives, it is zoomorphic, being made of affronted fish or animals holding a shaft in their open mouths. In one example in the Poldi-Pezzoli Museum, Milan (inv.no. 1659,cat.no.242 pl.56) two handles have been mounted in a similar way

by brackets. They appear to be a later addition and to be in the same category as the Walters Art Gallery and British Museum salvers (inv.nos 54.527 and 1878 12-30 711, cat.nos 163 and 164 discussed in Chapter Section 6). Although it is possible to see the inscription on these handles as being derived from "*'amal al-mu'allim Mahmud al-*", while Mayer read it as "the work of Muhammad Badr" (Mayer:1959, 64,67), the letters are incorrectly written. For example, the initial *ain* and *mim* of *'amal* are in the form of a figure-of-eight and the final *mim* of *mu'allim* is attached to the *dal*. In addition, the knots on the shafts of the handles are misunderstood. Either the handles are a later substitute for the originals or a clumsy attempt at repair, for the bucket itself is of high quality and thoroughly Islamic in concept. It is, however, interesting that here too the name chosen to adorn the substitute handles should be a rough derivation from *al-mu'allim Mahmud*, just as the Walters Art Gallery and British Museum salvers seem to bear copies of the same name and title. This would support a hypothesis of the high regard in which the Master Mahmud stood (Auld: forthcoming). A ewer in Paris (Musée du Louvre, inv.no.R.75, cat.no.263, pl.4) has similarly been inscribed by a hand different to the manufacturer with the words MAMUT and "*al-mu'allim Mahmud (a)l-naqqash*".

These buckets feature a bulge at the base of the concave walls where they meet the flat base. The example in the Museo Fundacion Lazaro Galdiano, Madrid (inv.no.2357, cat.no.233, pl.32)), bears the signature of Mahmud al-Kurdi on the band of decoration marking the bulge, while buckets in the L.A. Mayer Memorial Institute, Jerusalem (inv.no.M.203, cat.no.241) and the Victoria and Albert Museum (inv. no.311-1897, cat.no.253, pl.57), both of which are signed, bear their inscriptions on the main section of the walls. The Poldi Pezzoli bucket and another, similar, example in the Museum für Kunstgewerbe, Hamburg (inv.no.1878-739, cat.no.239, pl.58) have a rib encircling the base of the walls before they curve sharply outwards into the familiar bulge. Their rims are marked by a similar projecting rib. One example in the Metropolitan Museum of Art, New York (inv.no. 1974.119, cat.no.239), has a second rib at the base of the walls,

while the rim has no such projection. Another related type is demonstrated by a bucket in the British Museum (inv.no.1865 12-9 2, cat.no.242, pl.59) which has a rib dividing the main part of the wall into concave bands.

(iii) Bucket with bell-shaped walls and flat base. This type of bucket has a vertical rim, the walls then sloping out before curving inwards to a flat base. It occurs in different proportions, one example in the Museo Correr (inv.no.XII 6, cat.no.250) being broad and shallow, while one in the Victoria and Albert Museum (inv.no.M3-1946, cat.no.252) is tall and narrow. A bucket in the State Hermitage, Leningrad, probably 12th - 13th century, has a less pronounced neck (Pope and Ackerman:1938,1291A) while another, dated 725/1325, also in Leningrad, with a taller neck and more pronounced curve to the base, is very close in profile (Pope and Ackerman: 1938,pl. 1363B). The form is related to a Persian bucket, dated by Dr Baer to the mid-14th century, in the Institute of Fine Art, Chicago (1964.563; Baer:1983,239,fig.196) which now has three small cast feet. It is not clear if these are original or whether they are later additions, nor is it clear if the object was originally a basin. The shape, albeit with a shortened neck, is frequently found in metalwork from Western Iran and Fars dating to the late 13th to 14th centuries.⁽⁴⁸⁾ It is also found in Mamluk bowls from the early 14th century.⁽⁴⁹⁾

(iv) Footed buckets with bulbous body. This type of bucket is the best known in Islamic metalwork since the publication of the "Bobrinsky Kettle" by Ettinghausen (1943). This object carries the date 559/1163 and the information it was made in Herat.⁽⁵⁰⁾ The globular form was popular apparently until the early 13th century, but I know of no example after the fall of Herat to the Mongols in 1221.⁽⁵¹⁾ Although less spherical in shape than the Leningrad bucket, the examples of this shape traditionally attributed to the "Veneto-Saracenic" school also stand on a flaring foot. One piece in the Victoria and Albert Museum (inv.no.33-1946) has a suspension ring attached to the handle. It is not included among the objects

catalogued here for it is not inlaid. A similar bucket, without the foot, also suspended from a central ring attached to the handle, hangs beside the bed of the Princess in The Dream of St Ursula by Carpaccio.⁽⁵²⁾ An example of this footless globular bucket with a tall, concave neck is also found in the Victoria and Albert (inv.no. M223-1939). Both examples seem to be of Western manufacture.

Section 7. Ewers

Under this umbrella term there are three basic forms. One is described in mediaeval inventories as a "*coquemar*", that is a jug without a lid and with no lip, here referred to as Type (i). Another form has a lip (ii). The third form is subdivided into types (iii) and (iv), both having spouts and, probably, covers (although some of these are now lost). Fuller descriptions are given below.

(i) Lipless ewers with handle and low foot. The ewers stand on a low, flared foot from which the body swells out in a globular or pear-shaped form, before curving in to meet a wide cylindrical neck. The transition from body to neck is marked by a double collar (Walters Art Gallery inv.no.54.2334, cat.no.264). Although both the other two examples in the catalogue both have a neck rib, it appears not at the base but half-way up the neck (Musée du Louvre, inv.no. .57, cat.no.263, pl.5; Museo Poldi Pezzoli, inv.no.1656, Melikian-Chirvanil974/2 pls V-VI). The lip of the ewers in Paris and Baltimore flare outwards and handles emerge from them to meet the swelling body. Both these ewers are signed on the inside of the lip, the Baltimore example by one Qasim, the Paris one, as we have seen, by Mahmud, although this second "signature" is probably not contemporary with the jug, as we have seen. Both are decorated around the inside rim of the lip. The Paris jug is inlaid with silver, whereas the Baltimore example is engraved and gilded. The similarity between their profiles is striking, the Baltimore jug being, however, fluted. The fluting and overall shape is remarkably close to a ceramic jug in the Victoria and Albert (inv.no.C2003-1910, Salting Bequest),

believed by Dr Carswell to be Ottoman (Petsopoulos:1982,94,no.95). It is possible, therefore, that the metalwork jugs are also Ottoman. However, another provenance is also feasible. The division of the body decoration on the Paris jug into rectangles, against which a cusped ogival medallion is superimposed, is related to repeated scrolling arabesques arranged in two strata on the Mahmud al-Kurdi bucket in Madrid. Similar interlocking chains (fig.14c A4B) fill narrow borders on both objects and both also bear running (fig.16e F2B) and scrolling stems (fig.16b F1A). Moreover, the running stem on the foot of the Paris ewer has trefoils with long, undulating leaves. This particular leaf-form is found on the rim of a dish sold on the art market in April 1988, discussed above (Section 4 iii), where it was suggested the vessel might have been made in Turcoman Anatolia. A similar relationship between Turcoman metalwork and Ottoman Iznik ceramics was suggested by Dr Allan (1986,39) with reference to the form of the dish, with its flat base, low rounded cavetto and narrow flat rim, seen, for example, in a plate dated c.1530 in a London private collection (Petsopoulos:1982,pl.79).

A related form of ewer in the Museo Poldi Pezzoli, Milan (inv. no.1656, Melikian-Chirvani 1974/2, pls V-VI) has a bulbous body and long, cylindrical neck. It stands on a wide foot, which is, in fact, a continuation of the body. It too has no pouring lip and its handle, a later addition, is now attached to the neck and body. It is engraved rather than inlaid, and Dr Melikian-Chirvani (118) found in its decoration a close relationship to Mamluk metalwork. He drew attention to its similarity in form to the European "dinanderie"⁽⁵³⁾ metalwork but found the division of neck and body into equal parts, their correspondence underlined by a double fillet, "*une idée bien orientale*" (1974/2,119). This object demonstrates the phenomenon of a Western form with Islamic decoration, already discussed in relation to Dr Melikian-Chirvani's article in Chapter 1, Section 5.

(ii) Ewers with bulbous body, cylindrical neck and tall foot. This group is related to Type (i) in that it is a typical European "dinanderie" form. But the examples of the type are decorated in an

acceptable Mamluk mode.⁽⁵⁴⁾ One ewer in Naples (Museo Capodimonte, inv.no.11148/393, cat.no.267) has a blank shield on the lower part of the neck. It has a wide flaring spoutless lip, the centre of its neck marked by a projecting rib which is decorated by a "feather" chevron (Appendix fig.T5b TG5). The handle is in the form of a dragon. Now coverless, it may once have had both a lid and a different handle. Another example in the Victoria and Albert Museum (inv.no.M.43-1940, cat.no.265) has a similarly bulbous body but the foot is lower. It has a cover with a bird finial and plain handle and spout, but these are probably later additions. Ewers of this type appear frequently in paintings, particularly Netherlandish works of the 15th century whose subject is the Virgin, or a female saint.⁽⁵⁵⁾

(iii) Footed ewers with elongated ovoid body and spout. Two examples of the type are known to me, one in Hamburg and one offered for sale in April 1985.⁽⁵⁶⁾ The style is reminiscent of a group of blue-and white and under-glaze red Chinese porcelain ewers of the late 14th and early 15th centuries, although the "Veneto-Islamic" metalwork pieces are slimmer and with a longer neck and taller foot. The porcelain ewers too often have a supporting bridge between the body and the S-shaped spout. Believed to have been copied from metal ewers made in the Middle East, they give credence to the hypothesis that the "Veneto-Saracenic" ewers are also Islamic despite their Western appearance.⁽⁵⁷⁾ However, the decoration of the ewers is inconsistent. The Sotheby example has S-divisions on the upper body and a band subdivided by cusped medallions, the panels so formed being filled with knots and ropes, a feature found on Group A, the Mamluk objects. The lower register of the body, a wide band encircling the belly, has, however, a single chain formed by split-palmettes which is more reminiscent of Group B. The decoration of the second object, the Hamburg ewer, is even more confused. Here the divisions are awkward and irregular, although the arabesques filling each subsection are convincing. The work is reminiscent of the bucket in the Museum für Islamische Kunst, Berlin

(inv.no.B.72,cat.no.251, pl.60) whose decorative irregularities and unintelligible inscriptions lead me to believe that it may have been made in Europe.

(iv) Footed ewers with ovoid body, cylindrical neck and flaring, pinched lip. The form has a long history. A glass example, with the same pinched trefoil lip from which a curving handle springs, and broad ovoid body on a short, flaring foot, is in the Metropolitan Museum of Art, New York, and dates to the sixth to fourth century B.C. (Richter:1959,384, fig.515). The shape is also known in terracotta from an earlier period⁽⁵⁸⁾ and apparently continued without break from the Classical to the post-classical world, to judge by a sardonyx example, believed to be Sassanian, from the collection of Lorenzo de' Medici⁽⁵⁹⁾, and another in the San Marco Treasury believed to date from 7th century Byzantium.⁽⁶⁰⁾ The primacy of Sassanian or Byzantine form need not concern us here. It continued in the 'Abbasid period,⁽⁶¹⁾ and in the 10th century was being made not only in Fatimid Egypt,⁽⁶²⁾ but also in Samanid Khurasan.⁽⁶³⁾

The pinched trefoil lip re-emerges in a ceramic jug of the Ottoman period now in the Museo Civico Medievale, Bologna (inv.no. 1305, Arts:1976,267,no.412). The relationship is underlined by a painted "rib" round the base of the neck, although the ceramic jug is less elegantly proportioned. The decoration of the "Veneto-Saracenic" examples appears entirely Islamic in concept, successive bands running horizontally around the body and neck, each area distinguished from its neighbour by a narrow border or rib.

A sub-branch of this type of ewer, the only example that has emerged, is found in the David Collection, Copenhagen (inv.no. 51/1968, cat.no.271). The ewer is closely related in shape to the well-known Khurasanian type with a fluted body, tall spout and repoussé figural decoration marking shoulder and neck.⁽⁶⁴⁾ The Copenhagen ewer has a cylindrical rather than fluted body, but it retains the form of the spout, neck, foot and handle. It even has a residual repoussé decoration on the neck, although it is not figural

but a rosette. The decoration is, however, an all-over floral scroll, derived from a lotus, arranged in concentric strata. The same type of stem forms a running scroll border on the foot and transition from shoulder to body. The overall impression is of a background motif that has taken over the main role. There are no equivalents to either shape or decoration among other "Veneto-Saracenic" objects collected in the present study.

Section 8. Individual objects.

(i) "Document holders" (pls 61 and 64). Originally described in the catalogue of the Victoria and Albert Museum as a "penholder", the cylinder represented by cat.nos.256 and 257 is more likely to have been a paper or document holder. It is tempting to associate the cylinder with the extant correspondence between, for example, the Doge of Venice or the Medici family of Florence and the Mamluk court, particularly in view of the fact that the dimensions of the cylinders match those of contemporary documents.⁽⁶⁵⁾ The treaties between Sultan Qa'itbay and Florence in 1489, 1496 and 1497,⁽⁶⁶⁾ and his correspondence with the Doge of Venice, are particularly interesting because both cylinders have typical late Mamluk decorative schemes. However, neither bear a blazon or European coat of arms, which probably rules out the possibility of the objects being diplomatic in origin.

(ii) "Rose-water sprinkler". The shape is well-known from glass examples,⁽⁶⁷⁾ and is variously described as a "vase" or a "bottle". The "Veneto-Saracenic" metalwork bottles or sprinklers are closely related in their decorative schemes to the incense burners and hemispherical bowls, but they have been flattened.⁽⁶⁸⁾ The necks are somewhat crudely soldered from a sheet, the join clearly visible. Two similar objects appear on the shelf to the right of St Jerome (or St Augustine or Cardinal Bessarion),⁽⁶⁹⁾ one black and one red. Both have a flattened body, and a tall, narrow neck rising out of a knop at the base. Their appearance in Carpaccio's painting has an added interest as they stand opposite a composite candlestick of Type

(iii), as we have already seen, but whether they have any significance beyond evidence of their use as display objects it is not possible to say.

Part II

Decorative motifs

Section 1. Knots.

Among the words used for knot in Arabic is the word *'uqdat^{un}* from *'aqada*, to knot, tie or complicate. It also has the meaning of planetary node, as in Latin where *nodus* has a similar dual sense. In the Qur'an chapter "Daybreak", Sura 113, 4, the female "blower on knots" is synonymous with "enchantress" or "conjuring witch". A further subsidiary meaning is the node of a plant from which a bud sprouts, a sense which is extended to include a fruitful land, especially one with palmtrees (Lane:1872,V2104-6). Another term used is *saraja*, whose primary meaning is to lie, but with the subsidiary meaning to braid or plait. From this it extends to mean to beautify, to make light, and is used to describe God, the Prophet and the sun,⁽⁷⁰⁾ while the Caliph 'Umar is called the "Lamp of the People of Paradise" (*siraju ahli al-jannati*). The form *Sarraja^{un}* denotes a saddler, *sirajat^{un}* the saddler's craft and *surujiya*, saddlery (Lane: 1872,IV,1343-1344). Knot Type B below, where a heavy complex knot is formed in the centre of two straight parallel uprights, is probably best described by derivations of the verb *saraja*, with the overtones of leather embellishment. The knot is envisaged as a thong split into three, of which the separate strands are then plaited. This is seen most easily in fig. 2a K2A, though all fig. 2 examples are variants of the triple thong plait. The associated meanings of

making light or beautifying as applied to God or the Prophet are particularly edifying when the knot is used to adorn two of the letters of God's name, *alif* and *lam*.⁽⁷¹⁾

Two types of knots are used in the "Veneto-Saracenic" metalwork:-

(A) Guilloche (fig.1)

Type (A) is derived from the Classical guilloche, or otherwise called, the duplex knot.⁽⁷²⁾ A complex variation can be seen on the central rhomboid projections of an early 13th century mortar in the Muzim-i Bahktar, Mazar-i Sharif (Melikian-Chirvani:1982,67,fig.35). In this form it acts as a focal point to a design, as for example on a tray in the Victoria and Albert Museum (inv.no.31-1954, Melikian-Chirvani:1982,98,no.27) and on a pen-box dated 607/1210-1211 in the Freer, where it forms the central point of an inscription (inv.no. 36.7, Atil, Chase, and Jett:1985,102-110,no.14). Here the *hastae* to either side have duck-headed terminals that face towards the knot. In its simpler form as found on "Veneto-Saracenic" metalwork it consists of three elements, although it looks similar to Appendix fig.T1 TK1 which has two woven strands. It is made up of two intersecting oblongs intertwined round a rhomb (fig.1a K1A). In this form it usually appears at a joint between two sections of a design (fig.1b, c, d, fig.19, salver signed by Mahmud al-Kurdi, State Hermitage Museum, inv.no.VC235, cat.no.161, pl.21, figs 77,19b). A variety K1B is used to adorn the *hastae* of a debased inscription (fig.1b).

(B) Calligraphic

Type (B) is used to decorate the uprights of a border derived from *kufic* calligraphy (Pls 33,36,48,61). The letters *lam 'ain alif* may originally have had some esoteric meaning (Melikian-Chirvani: 1976) but can only be seen as decorative on the secular objects of this study. The knots are intricate and are ingeniously formed with

a variety of central devices (fig.2, a-g). Knots round the parallel *hastae* of calligraphy can be seen on a tower tomb at Radkan of 411/1020-21⁽⁷³⁾ and are compared by Dr Volov (1966,107-33,127-128, figs.10-12) to those on a series of unglazed jugs, the example illustrated by her being in the Philadelphia Museum of Art which, because of its form, probably relies on a lost metal proto-type. In the realm of metalwork proper, knotted *hastae* appear on the inscription which surrounds the centre of the "Bobrinski" bucket of 1163,⁽⁷⁴⁾ on a twelfth-century ewer in the British Museum,⁽⁷⁵⁾ on the "D'Arenberg Basin" of 1240,⁽⁷⁶⁾ on a candlestick in the Philadelphia University Museum⁽⁷⁷⁾ and on a mid 13th-century bowl in a private collection (Melikian-Chirvani:1982,13,fig.45A), evidence of the long-term popularity of the knotted *hastae* as a feature of certain decorative scripts.

Type K2D appears on a jug in the Kunstgewerbe Museum, Berlin, (inv.no.11,53 pl.47) that is typically Timurid in form but whose decoration is Mamluk in arrangement, consisting of alternating roundels and calligraphic oval medallions on the body and neck (Appendix I,no.27). This is the only example of a knot of the K2 variety known to me which appears on a "Timurid" object. It seems appropriate, in consequence, as I have already suggested, to propose a Mamluk provenance for the jug, and further to assign the elaborate central knots to a predominantly Mamluk mode, later assimilated into Ottoman artefacts. They appear on a candlestick with the name of Zain al-Din Kitbugha,⁽⁷⁸⁾ on the border of a candlestick in the name of Sunqur al-Takriti (before 697/1298), on the inside of a bowl with the name of the Emir Bahadur-As (before 730/1330), and on a dish with the name of Sultan Qansuh al-Ghawri (before 922/1516).⁽⁷⁹⁾

In connection with the knots appear a variety of twists (fig.4 a-f), and derived from these are two small opposed but unconnected knots (fig.4 g,h). These act as a rhythmic break to the heavy circular knots described above, and are also envisaged as being split thongs. They can be compared to the Timurid Appendix fig.T1 TK3 and TK4, which also appear on the Berlin jug. Variations on the theme

of knots and twists offer rich in possibilities. Fig.6b and e illustrate the different effects which can be achieved, while pls 33 and 36, and fig.7 show the typical Mamluk division into concentric bands encircling a central roundel, here filled by a knot of the fig. 2c K2C variety that stands independent of the upright supports. In this last example three different types of knot have been used in alternation in the outer border. Fig.8 has a central roundel based on intersecting sections of six circles. The outer border is made up of a series of alternating knots and twists, here with no variation in their form.

Another calligraphic feature appears on the Berlin jug in connection with the knots and twists. The pointed end to the "inscription" which has a triangular knot at its apex is also derived from calligraphy. It probably originated with the name of the Prophet, the initial *mim* and *ha* still being visible; the letters were arranged in a mirror image to form the symmetrical arc (fig.6c K5B). A similar device is found in a roundel on the upper gallery of Oljeitu's Mausoleum at Sultaniyya, forming a five-pointed star.⁽⁸⁰⁾

A common motif on late mediaeval metalwork is a trellis formed by plaited *hastae* (pl.38, fig.6a). It appears in connection with the name of the Sultan Qa'itbay on inscribed brass bands on the entrance door to the Ashrafiyya *madrasa* in Jerusalem, built in 887/1482.⁽⁸¹⁾ Although this is a true inscription beginning "Glory to our Lord the Sultan..." and although the uprights cross only once to form a single arc, the strands continue into a geometric interlace over the epigraphic panel and the effect is close to that achieved on metalwork. It is reminiscent too of the pincer *hastae* associated with Qa'itbay, seen for example on the two candlesticks commissioned by him for the Shrine of the Prophet, Medina, and on two lamp-stands.⁽⁸²⁾

Section 2. Geometric interlace. Plates 34,67-70.

This type of decoration, which has a basket-weave texture, is associated with knots because it often centres on a star and is made up of plaited straps (fig.9a,b, 10a,b). The method of construction of geometric patterns has attracted a good deal of interest. Hankin (1905,1925) spent many years trying to understand the basis of drawing such designs until he discovered lines scratched into the plaster of a small bath in Jodh Bai's palace, Fatehpur Sikri (dating to 1569-72), which gave him the clue to understanding. It was a grid of polygons which formed the construction lines for a star-shaped pattern. In consequence, it is now believed that all such geometric patterns are first worked out on a grid.

The starting point of Islamic geometric pattern is now thought to be a circle, into which an equilateral figure is drawn, most commonly a hexagon or octagon (pl.70). By eliminating some of the connections, or by using curvilinear instead of straight lines, an almost infinite number of variations can be achieved. Until the basic approach had been discovered, it had proved impossible for 19th century Europeans like Prisse d'Avennes (1877), Owen Jones (1856/1986) or Bourgoin (1879/1973) to copy the more complex designs. Recently an esoteric meaning attributed to the geometric patterns has awakened a renewed interest in the formation of the designs⁽⁸³⁾ which has spilled over into a more general interest in the appearance of Islamic art.⁽⁸⁴⁾ In the metalwork of this study, the basic grid on which a pattern is constructed is also a circle even where it may appear to be a square. Late mediaeval European imitators of Islamic arabesque interlace did not understand this, and in consequence their designs appear distorted or confused. A salver in the Victoria and Albert Museum (inv.no.194-1887) is an attempt to create an Islamic design. The divisions are, however, ovoid and surrounded by complex shields. It is not necessary to analyse the fleshy split palmettes to deduce its European origins. In Islamic design a circle remains the basic measure even where it is hidden. In fig.11 for example, the guilloche knot K1A is surrounded by a rhomboid border

which gives the impression of a square base, but the design is made up of overlapping octagons, inter-connected to form eight-pointed stars, which were inscribed into a grid of circles later removed from the final design (El-Said and Parman:1976, fig.31).⁽⁸⁵⁾ An octagon is also the basis for a slightly different design found on the base of a bowl in the British Museum (inv.no.1978 12-30 697, Baer:1983, 134, fig.112, cat.no.103). In the same way, a hexagon is the underlying design for figs 10a and b. El-Said does not illustrate either form but 10b can be compared to a panel on the Mausoleum of I'timad al-Dawla, (1976, his pl.32) which is made up of intersecting decagons.⁽⁸⁶⁾ A basket-weave effect is achieved by means of curving the lines of an octagon interlace (fig.9a) or filling the centre of hexagons with a rosette (fig.9b). By combining knots in a hexagon interlaced arrangement round a central six-pointed star, a rich effect can be achieved that only reveals its basic construction if the separate strands are isolated (fig.3).

The motif often described as a "Y-interlace" (fig.9c) or "key" (Wilson:1988, fig.41) is also based on intersecting hexagons. It is widely used as an architectural decoration⁽⁸⁷⁾ in Anatolia, as well as on later Mamluk metalwork.⁽⁸⁸⁾ Its appearance in roundels on two objects in the Victoria and Albert Museum, ascribed to Timurid Iran by Dr Melikian-Chirvani, may support Dr Allan's re-assessment of them as Turcoman⁽⁸⁹⁾ for such Mamluk features are not found elsewhere on Timurid metalwork.

Section 3. Borders.

The borders of "Veneto-Saracenic" metalwork fall into three categories : (A) the plaited braid or guilloche (fig.12-14), (B) a running or scrolling stem (figs.15-17), and (C) derived from Timurid designs, which encompass those used by Mahmud al-Kurdi (fig.19 a-d). Both the former are derived from Classical prototypes, whose origins go back to prehistory. It is not the remit of this study to

investigate the Chinese, Mesopotamian or Egyptian origins of these motifs, but only to note their continuance in the mediaeval Middle Eastern world.⁽⁹⁰⁾

(A) The guilloche is ubiquitous in mosaic floor decoration of the Hellenistic and Roman periods. It can consist of two or more entwined strands to give the appearance of a twisted rope, a braid, or a chain (fig. 12 a-d, 13 a-c). In its more complex form it becomes a knot.⁽⁹¹⁾ Its basic grid is the circle. In its most complicated form in Islamic art, the construction grid is disguised, as for example on Ottoman metalwork, where the guilloche chain becomes a complex floral scroll (fig. Appendix fig. T2e TA4). Mrs Wilson (1988, nos. 50-55) devoted six pages to interlaced borders but in "Veneto-Saracenic" metalwork fewer varieties were used, the most common being A1 (fig. 12a) and A4 (fig. 14a), which is used as the basic grid for a split palmette arabesque (figs 20b, 22 b-e). A4A (fig. 14b) is close to Timurid TA1 which was also used to fill a cartouche (Appendix fig. 2 b, d TA1) as in the "Veneto-Saracenic" examples (A4B, fig. 14c, A4C fig. 15b). The dart shape of the chain A4A and A4C is derived from split palmette stems that meet at a point. This sometimes bears a trefoil or cross bar. The motif in turn seems to derive from the outer sepals of the white or blue lotus blossom (*nymphaea lotus* or *nymphaea caerulea*) that originally always alternated with a lotus bud and later with a palmette.⁽⁹²⁾ The chain A4A is found in architectural decoration too, for instance as a border in the main chamber of the Mausoleum of Oljeitu in Sultaniyya, and as an all-over repeat on the outer panels of the stucco *mihrab* in the Sufi oratory of the Masjid-i Kali at Turbat-i Shaykh Jam (844/ 1440 or c.733/1333) (Seherr-Thoss:1968,152, pl.45). It also appears in Anatolia, in the Sircali medrese at Konya and the tomb of Mehmet I, the "Green Turbe", Bursa (816-24/1413-21)(Seherr-Thoss:1968,124, pl.120). It is not surprising to find the chain used as a frame for illuminated panels, for the motifs found in architecture and metal-work are common to the art of book. A pattern book must have been the link between the arts but no early example has survived.⁽⁹³⁾ It is not clear how design was transmitted from one medium to another but it is logical

to suppose that a motif was first worked out on paper before being carved in monumental form or engraved into metal, metal and stone where any mistake would be less easily corrected. A chain of the A4 type is found on the side panels of a Qur'an written and illuminated in 485/1092 in Iraq or Persia,⁽⁹⁴⁾ as a frame to Sura XXXVII heading of a 600/1203-4 Qur'an, from the Near East or Iraq⁽⁹⁵⁾ and to fill the polygonal rays on a central twelve-pointed star on a frontispiece⁽⁹⁶⁾ to a Qur'an written and illuminated in the Persian style in 713/1313, which was in Cairo thirteen years after it had been written. It does not, however, seem to have been popular among the Mamluk illuminators, nor does it feature as a motif of the decorated domes of Cairo (Kessler:1976).

The guilloche, on the other hand, is so widely used in Timurid and Mamluk manuscripts that it is pointless to enumerate all the examples.⁽⁹⁷⁾ Here the restraint of the strictly geometric angular straps acts as a contrast to the exuberant intricacies of the Timurid borders, the gold of the guilloche setting off the black or blue frame backgrounds. It is also popular in Maghribi illumination where it continues as a motif into at least the later 16th century.⁽⁹⁸⁾ In its simplest form of two twisted strands (fig.12a A1), it frames a 3rd/9th century Qur'anic passage on a manuscript page in Istanbul,⁽⁹⁹⁾ and borders a Sura heading of a similar date.⁽¹⁰⁰⁾ In another simple form, a three-stranded plait (fig.12b A2), it is found on the Istanbul Qur'an cited above⁽¹⁰¹⁾ and on a 12th century Afghani Qur'an in the Topkapi Saray Library where it is used as a frame to Sura IX:94.⁽¹⁰²⁾ The guilloche is used widely in monumental design as well as in the decorative arts. A pair of wooden doors, for example, in the National Museum, Tehran, dated 915/1509,⁽¹⁰³⁾ has a triple guilloche (fig.12b A2) as an outer frame. Between the panels run bands of an A4B (fig.13c) chain, and the larger panels too are filled with a chain made up of the split palmette quatrelle (fig.44a variant). A triple guilloche A4B (fig. 14c) frames the pendentives of the upper galleries of the Mausoleum of Oljeitu in Sultaniyya, which also has a border of two types of

running stem F2 (fig.16c). It has another border of two stems, one of a split palmette and one bearing trefoils, found on Timurid metalwork, Appendix fig.T3 TF2, but in Oljeitu's Mausoleum (703-13/1304-13) the split palmette strand lies flat over the one bearing trefoils, as it does in the later *madrasa* at Khargird of 848/1444-5. At the Karatay Medrese, Konya, by contrast, the two strands of the motif - this time two split palmettes - interlock in the familiar way. The Medrese displays a rich profusion of different border designs in black and turquoise, four varieties of F2, two of Timurid TF2 and two of Timurid TB1. Yet another familiar border motif is found in Oljeitu's Mausoleum, the two strand guilloche A1A (fig. 12d).⁽¹⁰⁴⁾ This particular type is found also around the panel of inscriptions which include the date 715/1315 in the south-east side entrance *iwan* of the Masjid-i Jami'at Ashtarjan.⁽¹⁰⁵⁾

(B) The running or scrolling stem is also widely used as a border motif in "Veneto-Saracenic" metalwork, especially Group A, the Mamluk pieces (pls 33 and 36). It takes the form of a single stem that either undulates, its single movement broken by backwards-looking single split palmette leaves (F2A, fig.16 c-e) or bifurcates, one stem almost completing a circle, the other continuing an undulating scroll. In the second form it carries trefoils (F1 F1A fig.16 a-b).

The derivation of the running stem seems to be ultimately a series of S-spirals bearing lotus blossoms or palmettes from Egypt (Rawson:1984, figs 180-81, 192), that emerged as an acanthus scroll in Classical Greece, from whence it spread into Asia and the Far East (Rawson:1984,65-88). In Egypt the lotus-bearing stem became fashionable again at the height of the Mamluk inlaid metalworking art of the 13th and 14th centuries, doubtless imported into Egypt from the Jazira by the Mawsili school (Chapter 2 above), whence it arrived from Mongol Iran and thus from China. The brasses of Badr al-Din Lu'lu, for example,⁽¹⁰⁶⁾ carry running and scrolling stems with lotus buds and split palmette leaves (Rice:1950,pl.14) which are also adapted to fit a quatrelobe (Rice:1950,pl.16). Ahmad al-Dhaki al-Mawsili used the scrolling split palmette stem not only as a

background but also to fill cartouches and as a border.⁽¹⁰⁷⁾ The motif was also used by Ahmad al-Dhaki's *ghulam*, Abu Bakr ibn Hajji Jaldak, on a candlestick dated 622/1225 in the Boston Museum of Fine Arts,⁽¹⁰⁸⁾ which bears a combined chain A4A (fig.14b) and dart and shield alternation (figs 40,36a).

The trefoil seems to replace the lotus bud as the appropriate appendage for a running stem. Its connection to the earlier lotus bud can be seen, for example, in fig.16a F1 (Allan:1986,102-3, no.17) where the long pointed terminal leaf in the shape of an irregular rhomb seems close to the fat lotus buds of early 14th Mamluk metalwork, like the Muhammad ibn al-Zayn basin in the Musée du Louvre.⁽¹⁰⁹⁾ In F1 the incised details of the pointed bud of fig. 15e have become separate units, either because the buds have been misunderstood or because smaller areas of unincised silver were preferred to the original mode of secondary working. The Arabic word for lotus is *handaququn*, a term which covers the "sweet" or "bird's foot" trefoil, (*melilotus*), which has a clover-leaf appearance (Lane:1872,Part II,656). Fig.17a shows a running stem with a half-open lotus⁽¹¹⁰⁾ or trefoil and fig.17b an arrangement of three of the half-open buds or trefoils laid out in a clover-leaf pattern. A rosette, also found widely on Mamluk metalwork, is associated with the lotus too, for it is thought that it represents a lotus blossom viewed from above. Perhaps because of their association with the sun (Rawson:1984,201), lotus bud scrolls and lotus blossoms are frequently found in association with other astrological symbols like a swastika rosette,⁽¹¹¹⁾ signs of the zodiac,⁽¹¹²⁾ and *wag-wag* or animal scrolls.⁽¹¹³⁾ The association of birds with these symbols has not yet been fully studied, but the occurrence of both birds and birds' heads in association with astrological iconography is marked.⁽¹¹⁴⁾ They are found in pairs,⁽¹¹⁵⁾ as part of a circular border,⁽¹¹⁶⁾ or as a frieze border.⁽¹¹⁷⁾ The ambiguity inherent in the stylised birds is marked, those on the border of the Muhammad ibn Zayn "Baptistère" basin (fig.18a) in particular being fish-like in form, as well as reminiscent of a split palmette. The bird scroll on the penbox by Mahmud ibn Sunqur in the British Museum (fig.30b) is

close to that on a bowl in the Metropolitan Museum of Art, New York (inv.no.91 1 581, fig.18b), both of them having birds that are attached to the scrolling stem but also act as a geometric chevron-like overlay. On a *Wasserschale* previously in the Sarre Collection⁽¹¹⁸⁾ a panel of a lotus-bud stem alternates with a panel of bird scroll. The visual ambiguity recalls the delight in similar sounding words in a literary context, especially in poetry. Greatly aided by the root system of the Arabic language, a small change in the structure of a word can alter its meaning. Unfortunately, little work has been done on the terminology in Arabic for the types of decoration discussed here. A future study may find a basis in literature for the close association between birds, fish and lotus blossom. A close relationship between animal and vegetal forms is underlined in the candlestick base made for Zain al-Din Kitbugha in the Walters Art Gallery (inv.no.54 459, Atil:1981,65-6,no.16) where the bottom stem has lotus buds and the second to bottom animal heads. At the top of the base is another stem. Here it is difficult to decide whether the stem bears animal heads or buds, for there seem to be a mixture of both. On a lobed cartouche of a ewer in the Musée du Louvre (inv.no.6314, Baer:1983, 165,fig.139) two birds are interlocked at breast and tail to create a motif in the same mould as the scrolled stems (my figs.35d and 35a,b,c). This phenomenon is found equally in a roundel on a footed bowl in the Victoria and Albert Museum (inv.no.573-1878, Melikian-Chirvani:1982,189, no.85) where two birds face each other, their beaks and legs extended into knots. Ambiguity between fauna and flora is found on another object related to the pieces of the present study. A candlestick in a private collection in Tehran, that has close similarities to the dish in the Victoria and Albert Museum (inv.no.374-1897), is decorated with a series of lime medallions around its body. Each medallion has a large lotus, the petals of which are inscribed with two parallel lines like those on the dish. But the pair of inner petals that give the lotus its characteristic form are made up of two fish whose heads meet, their tails joined in the shape of a trefoil.⁽¹¹⁹⁾

It is also possible to see in the split palmette an echo of a dragon's head with open, gaping jaws, like those that surmounted the Talisman Gate at Baghdad or the gate to the Citadel of Aleppo.⁽¹²⁰⁾ In a central article, Dr Hartner discussed the appearance of the planetary eclipse dragon, al-Jawzahr, (1938,134-44) and drew attention to a heart-shaped knot (fig.4i K5) which replaces the dragon in many instances.⁽¹²¹⁾ The resemblance is particularly close when a small inlaid disc is associated with the "dragon's mouth", as on the incense burner in Florence (Museo Nazionale del Bargello, inv.no. 292C, cat.no.16, my fig.16c F2). The knot is also used in an apotropaic sense.⁽¹²²⁾ However, it does not appear to have been seen in this way on "Veneto-Saracenic" objects and is therefore beyond the scope of the present study.

(C) Borders : Mahmud al-Kurdi

Mahmud used a particular type of border that derives from Timurid metalwork and manuscript illumination (pls 7,21-22). It consists of a series of linked split palmette darts with a second linked element that carries a trefoil at the apex. He either interlocked the two elements (figs.19b,c) or allowed one strand to dominate the other (figs.19a,d). Under the section devoted to Mahmud (Chapter 1, Section 6), the possibility of the master working in Cairo was discussed in view of the closeness of his border motifs to those on Qur'ans illuminated in that city. In that section my counter-argument was put forward that the factor common to both is Timurid design.⁽¹²³⁾ A single element of the device is used as a decorative motif on a panel in the Masjid-i Jami', Isfahan, dating from 880/1475-6, and made under the orders of Uzun Hasan. The panel is made up of three-dimensional, geometric polygons standing in relief against a ground of octagon-based interlaced stars, each with a central rosette. It also appears, among other examples, in the facade spandrels of the panels surmounting the lower ogee arches of the court that abut onto the northwest iwan (Seherr-Thoss:1976,84

pl.87). Here the main motif is in white against a dark blue ground over which a paler blue arabesque with yellow points is set. The approach shown in the tile decoration of the Masjid-i Jami', with the three-dimensional effect, highlights of white lines and low-key background arabesques is very similar to that found on Mahmud's metalwork.

A more complex variety of the same alternation is also found (figs.20 a-c). An almost identical arrangement of scrolling stems and intertwined trelliswork can be seen on the exterior dome of the Masjid-i Shah in Isfahan (Burckhardt:1976,168,pl.157). The arabesque borders can be repeated to fill any area, either a deep border (fig.21a-b), a lozenge (fig.29b), a triangle (fig.22f) or a quadrangle of changing dimensions (fig.28), just as a scrolling arabesque can reach to the most awkward corner of a panel (figs 24-28a) or fill an entire roundel (fig.28b,33,34a). Fig.32a shows another Timurid border (Appendix fig.T7 TB6 variant) to which knots have been added, and fig.32b is another variant, this time bearing trefoils. Zain al-Din excelled at this type of controlled complexity, as is shown by the engraved motif on the inside of a bucket in the Victoria and Albert Museum (inv.no.1826-1888,cat.no. 244, fig.33). The interlocking split palmettes at the centre are strongly reminiscent of Ottoman design.⁽¹²⁴⁾

Section 4. "Dart and Shield" alternation

Here the split palmettes are arranged to form an alternating configuration of a dart and a shield (pl.63, fig.36a). The darts are formed from two split palmettes arranged back to back to meet at the apex; the shields, conversely, are formed by the space outlined by the outer edges of the darts and the stems that issue from them (fig.36a). The shield is thus inseparable from the dart and inherent in any motif formed of circular elements, being the negative motif, as it were, between the positive darts. Fig.34b has a central "shield", and fig.35a shows how the design has been built up.

Because of the positive/negative aspect of the forms, the dart and shield configuration is widespread. A different number of repeats alters its appearance dramatically (figs.36 a-b,37,38 a-b,39 a-b). It is inherent in the Timurid border designs (Appendix fig.T7 TB4 and TB5) as can be seen in fig.42c. It appears in a hidden form on the dome of the Cinili Köshk, Istanbul of 1472 (Kühnel:1977,fig.15, pl.15a), on the cover of a 16th-century ceramic vessel in the Louvre (Kühnel:1977,fig.14,pl.14) and also on the carved masonry dome of the mausoleum of Amir Gawhar al-Qunuqbayi, completed before 1440 (Kessler:1976,pl.28). It appears in a more obvious derivation from a Timurid border motif in fig.42c and fig.37, where elongated finial terminals to shield and dart reach to the central roundel. An apparently confused panel motif often resolves itself into a shield and dart border arranged in an upside-down, back-to-back repeat (fig.42a, pl.70). The alternation can be recognised in a panel chain on a spandrel (fig.40), in the border of an incense burner in Venice (fig.41a), and the central roundel of another in Bologna (fig.41b); it can be seen as a single unit in the lobed medallions of a box now in the British Museum made for Badr al-Din Lu'lu (inv.no.1878 12-30 306, Rice:1950,pl.4a, my fig.41c) and on the ewer made by Husain ibn Muhammad al-Mawsili at Damascus, dated 657/1258, now in the Musée du Louvre (Rice 1957/3, 312-13,pl.13 b,c, my fig.41d). There are numerous examples but these are enough here to show the ubiquitous nature of the alternating motifs.

Section 5. Split palmette or rumi quatrelobe. Plates 70,71.

It has already been explained above how two split palmettes that meet at the apex form a dart shape. The origins of the motif are ancient, as Dr Rawson explained in the Appendix to her book on Chinese design,⁽¹²⁵⁾ and seem to have come from the negative shape between two lotus blossoms whose outer petals bend outwards from the base to meet over an intermediate lotus bud. If four lotus blossoms are arranged round a central rosette in a cruciform pattern, the interstices between their outer petals form a saltire of darts, as

can be seen on the stone carpet from Nineveh in the British Museum. Released from the encompassing grid of squares, the same device can be seen in the background of a scene of two lions chasing a ball with long streamers, which is found on a pier of a ceremonial Ming dynasty tomb of the 15th century (Rawson:1984,fig.97). However, here it is clearly arranged on a grid of intersecting circles in one of the simplest forms of a linked sequence.⁽¹²⁶⁾ Because of its associations with the lotus, it may have had an astral iconography, although it seems unlikely that, if this was so, it was still recognised in 15th-century Mamluk, Persian or Anatolian metalwork, despite its correct use in Ming architectural decoration. Turned 90 degrees to become an upright cruciform design, it was widely used in Timurid decoration, both on metalwork, where it features in a roundel on a lampstand inscribed with the name and titles of Timur dated 799/1397,⁽¹²⁷⁾ and on another lampstand from the same shrine,⁽¹²⁸⁾ as well as on carpets.⁽¹²⁹⁾ It was also used for architectural decoration. A leaf of a wooden door in the Iran Bastan Museum, Tehran features the motif in square panels (Pope and Ackerman:1938, vol.VI,pl.1465C) and it appears in its saltire form in the central relief octagon of the Uzun Hasan panel of the Masjid-i Jami', Isfahan, discussed above in connection with Mahmud al-Kurdi's borders. It might be expected that it would appear widely in Qur'anic illumination, but it does not, perhaps because of the Christian associations of the cruciform shape. Where it does appear, the cruciform aspect is subdued;⁽¹³⁰⁾ or it is arranged as a saltire.⁽¹³¹⁾

The cruciform aspect of the motif is recognised explicitly in an ivory plaque in the Cairo Museum of Islamic Art (inv.no.5620, Atil: 1981,206-7, no.103). The panel is filled with a chain guilloche arabesque (A4B variant) in the centre of which is a round frame. In the roundel is a cross made up of split palmette leaves behind which four circles join a central wreath to form a nimbus round the trefoil terminal to each arm. It is assumed the plaque was attached to a Christian object in one of the Coptic churches. The motif is remarkably rare on Mamluk objects other than those in this study but

seems to be popular on Anatolian and Persian objects. It appears, for example, in Armenian art⁽¹³²⁾ dating from the 14th to 17th century at least.

Adapted to perfection to a circular frame, the motif is also used freed from any restraint as an all-over repeat. This tendency was already apparent in Timurid design, as for example on the ewer dated 1484 in the Nuhad Es-Said Collection (Allan:1982,110-14, Appendix II no.5), where it appears as a ground motif between the framed cartouches. On a number of "Veneto-Saracenic" incense burners and hemispherical bowls it appears both within a circular frame and as a ground decoration between the roundels.⁽¹³³⁾ Freed completely from a frame, it features as an Anatolian carpet design (fig.45a, 46a-b). It can be placed on a grid (fig.46b) or in a frame of geometric knots (fig.45b) or lobed cartouche (fig.47). There are many variations on the theme, from the more floral (fig.44b,d, 48b) to the geometric type (fig.49a-c). On a Safavid box in the Victoria and Albert Museum (inv.no.372-1897, Melikian-Chirvani:1982,286-87,no.122) it is wound around by a stem bearing lobed blossoms. Expanded, the four-part split palmette division can organise a larger space. The base of a bucket signed by Zain al-Din in the Victoria and Albert Museum (inv.no.1826-1888, cat.no.244, pl.46) is arranged in a four-part design (fig.61). It is based on the split palmette quatrelobe, but the palmettes have been subdivided into multiples of the same foliate stems. This phenomenon is discussed below in Section 9.

Section 6. The Lotus

The lotus seems to have become popular in Egypt at the time of Nasir al-Din Muhammad ibn Qala'un (1293-94, 1299-1309, 1310-41), probably due to the contemporary fashion for Chinese ceramics. Although running stems bearing lotus buds feature in Egypt before the end of the 13th century,⁽¹³⁴⁾ the full blossom, seen in its characteristic side view, appears on metalwork for the first time

around 1300. It is seen, for example, as the main decoration of two roundels on a bowl in the Galleria Estense, Modena⁽¹³⁵³⁾ which was made for the amir of a Malik al-Nasir, probably Muhammad ibn Qala'un (Rice:1957/1,489). A bowl in Turin (inv.no.159) was dated to the same period by Rice. It too has lotus blossoms in six lime medallions round its underbelly (Rice:1957/1, pls III,Va,b). They appear on the incense burner in the Nuhad Es-Said Collection, which is inscribed with the name Muhammad ibn Qala'un (Allan:1982,86-89) and on an anonymous ewer in the Cairo Museum of Islamic Art (inv.no. 15089), both on the neck and on the body (Atil:1981,72-3,no.19). They feature too as a frieze around a central roundel either with an inscription,⁽¹³⁶⁾ or a swastika.⁽¹³⁷⁾

The association of the lotus with the sun has already been mentioned but the symbolism attached to this combination was probably largely forgotten by the later 15th century. Although Qa'itbay's candlesticks for the Shrine of the Prophet still feature the blossoms attached to a running stem border in the traditional way, which would be appropriate enough on a light-bearing object, the same stems are found on one of his bowls with no associations with light (unless the sultan himself provides them), so the lotuses may be coincidental on the lampstands.⁽¹³⁸⁾ The naturalism of the early 14th-century examples (fig.50c) usually becomes distorted into an exotic re-interpretation in the later Mamluk period,⁽¹³⁹⁾ elements of the blossom being used to fill spandrels, roundels and panels (figs. 51,52). Some of the lotus blossoms on Qa'itbay's metalwork have petals that cross at the tip, reminiscent of the "scissor" *hastae* of his dedicatory inscriptions, although this form of lotus was not an invention of Qa'itbay's craftsmen.⁽¹⁴⁰⁾ Elegant lotus blossoms with both crossed and uncrossed petals can be seen on the lid of a Qur'an box from the Mosque of Sultan Qansuh al-Ghuri (built 1504).⁽¹⁴¹⁾ The box was probably made in the early 14th century, the central medallion of a "radiating" inscription being close to that on the incense burner with the name of al-Nasir al-Din Muhammad ibn Qala'un in the Nuhad Es-Said collection. In the later period,

the blossoms tended to be used as a border repeat (fig.53) rather than as a sole feature, unless in a minor role, although one does appear in the middle of a roundel on a 15th-century drum.⁽¹⁴²⁾

Sometimes the lotus is disguised, as is the lotus bud. Fig.52a shows a panel motif. Although it consists of a split palmette stem that rejoins to form an oval, the inlaid shapes within the frame are probably derived from a lotus bud. Fig.52b shows a similar device, which is widely used to fill small spaces. Figs 52c and d are not lotuses but peonies, although the separate elements are close to those between the radiating petals of fig.52 f-h and 55a, which resemble a child's drawing of a full or setting sun. If the lowest and topmost elements of fig.51f are compared to them, it seems likely that they too are derived from a lotus blossom. Figs 52g and i are formed from the original lotus-flower and -bud alternation, described above following Dr Rawson (1984,210-12), that develops into split palmette quatrelobes. In a "Veneto-Saracenic" context, the association between these various forms of the lotus blossom can be seen in the roundels on a hemi-spherical box in the Victoria and Albert Museum (inv.no.2289-1855, cat.no.120, pl.69). The advantages of a motif that can be adapted to fill a circle or half-circle (figs 50a,b, 51a, 52b,f-i), an oval (fig 51d) or a triangle (fig 55c) are obvious.

Section 7. Fish whorl.

Plate 40.

A fish-whorl, made up of six fish whose heads point towards a central disc, appears on the inside of many of the "Veneto-Saracenic" bowls and lids (figs 56a and b).⁽¹⁴³⁾ The engraved details of the fish-heads conform to -and disguise - two concentric circles, which are indicative of the spinning process. In some examples (cat.no. 146) the eyes and the central disc are inlaid with silver or gold, underlining the planetary associations inherent in six circles spaced around a central disc.

Section 8. The Circle.

Besides being used as a basic grid for the arrangement of a pattern, as we have already seen, the circle also featured in its own right, either singly as a roundel frame, or duplicated and intersected with other circles to form a more complex configuration. Pl.73 shows the use of the circle both as a central feature and as a basic division of the ground. Each medallion and each intermediary motif of four converging ogees is drawn within the imagined circumference of eight contiguous circles of identical diameter. The central roundel is a common feature on the bowls, salvers and incense burners studied here and needs no special mention, being an obvious response to the roundness of the object. Roundels are also used to break a frieze, thus subdividing a border into panels.

Intersecting circles are used to break the central medallion into sections, each of which can be treated either as part of the overall design⁽¹⁴⁴⁾ or as subdivisions, to be filled with lotus blossoms or buds (figs 57a,b; 48a,c), paired birds (fig.57a), or a geometric interlace such as swastikas (Atil:1982,70,no.18). The use of intersecting circles in this way is inherent in the circle itself. A circumference drawn by compasses, or a piece of string held taut, can be cut at regular intervals by arcs drawn by the same method, thus creating subdivisions and subsections.⁽¹⁴⁵⁾ Figs 57, 58 and 59a show different versions of six intersecting circles arranged around a central seventh. The effect is altered dramatically by using a different number of circles (figs 59 b-c and 60).⁽¹⁴⁶⁾ A more complex subdivision into twelve parts is found repeated on the inside of a bowl in the Victoria and Albert Museum (inv.no.740-1898, Atil: 1981,86-71,no.18) made for an anonymous patron, both in the central roundel and in the surrounding border. It is also found on a tinned copper tray in Washington DC.⁽¹⁴⁷⁾ Whether or not the choice of six or twelve circumscribed circles had some symbolic meaning, it is impossible to say with certainty. But since the subdivisions are filled with lotuses, birds or swastikas, all of which are associated with sun symbolism,⁽¹⁴⁸⁾ it is hard to escape the suspicion that some

such idea was present originally, even if arguably it was lost by the later period. The difficulty lies in the very roundness of an incense burner or bowl : an astrological meaning to such an object would be plausible anyway - as is apparent from the figural images on the spheres in Appendix II - but a response to its basic shape could equally explain the decorative scheme.

Section 9. Subdivided split palmettes and fleurs de lys. Plates 74-76

Fig.61, the base design of a bucket by Zain al-Din, has a feature that does not appear on the objects signed by Mahmud al-Kurdi - the subdivided split palmette. Zain al-Din used these to delineate the triangular and rhomboid motifs that radiate from the central star, and at the border, where they lie along the circular frame, giving the impression that the design is cut from a larger pattern. The idea of making up a leaf form by small, individual leaves drawn within its outline was used by the thirteenth-century Mawsili artists. Figs 62a and b are copied from Rice (1950,632-3,figs 7 and 8) who drew fig.62a from a tray in the Victoria and Albert Museum (inv.no.905-1907) made for Badr al-Din Lu'lu', where the motif acts as a terminal to three lime-shaped medallions. Fig. 62b is an almost identical arrangement found on a basin dated 650/1252 and signed by Da'ud ibn Salama al-Mawsili, now in the Musée des Arts Décoratifs. The element in common is the split palmette leaf (fig 62e), which is a somewhat more complex form to that used by Zain al-Din in his cut-off leaves on the border of the bucket base. Isma'il ibn Ward al-Mawsili used a simple form too on a box in the Benaki Museum, Athens (Rice:1953/1,62,64,figs 1,3,my fig.62g). The motif was particularly popular in Anatolia, appearing for example on a pierced lamp made by 'Ali ibn Muhammad al-Nisibini in the city of Konya in 679/1280-81 (Rice:1955,207-12, my figs 63,64). The split palmettes are not pierced but the subdivisions are clearly worked in a repoussé technique (Rice:1955,pls V-VII). The motif does not seem to have found favour in Mamluk Egypt, for I know of no metalwork or ceramic objects from the region where it occurs. Nor does it

appear, namely where it might be expected, on the carved masonry domes in Cairo, despite the wish of Sultan Qa'itbay's craftsmen to add tonal variety to the stone surface.⁽¹⁴⁹⁾ The only piece of metalwork where it does appear is an engraved steel standard made for Tarabay in about 1500 (fig.65) now in the Metropolitan Museum of Art (inv.no.1936, Atil:1981,116, no.43). An inscription on the standard states "One of the things made for the noble excellency al-Saifi Tarabay (officer of) al-Ashraf (the secretary) the noble office, in Syria the protected and may his victory be glorious." "In Syria the protected" would suggest that the standard was forged and decorated in Damascus or Aleppo, more probably the former.

The areas where the subdivided split palmette proliferated, however, are Anatolia and Safavid Iran. To present the evidence for Persia first - it occurs on metalwork objects,⁽¹⁵⁰⁾ on textiles⁽¹⁵¹⁾ and on architectural monuments.⁽¹⁵²⁾ In Anatolia it appears on Ottoman artefacts and in architectural details. A border of a Qur'an in the Topkapi Saray⁽¹⁵³⁾ has pale blue split palmettes with dark blue subdivisions almost identical to the Ardebil carpet medallion. The four examples of Qur'an illumination under the Ottomans and Safavids published by Lings⁽¹⁵⁴⁾ all have elongated split palmettes with subdivisions. On ceramics, it features in Iznik border tiles, usually as white subdivisions on a cobalt blue leaf against a sealing-wax red ground,⁽¹⁵⁵⁾ although elsewhere the tiles were made with different colour combinations.⁽¹⁵⁶⁾ An echo of the motif can be seen on a jug made in Iznik in the later 16th century, which has large leaves with details in red that follow the split palmette subdivisions.⁽¹⁵⁷⁾ It appears in painted architectural detail too, for example on the ceiling of the Selimiye Complex, Edirne.⁽¹⁵⁸⁾

The fact that Zain al-Din sometimes used subdivided split palmettes (fig.61; 62c,d; 66)⁽¹⁵⁹⁾ while Mahmud al-Kurdi apparently did not is noteworthy. It probably indicates, first, that Zain al-Din was working in the 16th century, rather than the 15th (although the motif was used in the 13th century, it became popular again only

from c. 1500, to judge by the examples cited above); and secondly, that Zain al-Din was working either in Safavid Iran or Ottoman Turkey. As his work is closer to Mahmud's than to Safavid examples, it seems probable that he was continuing the mode set by the Kurdish master in Eastern Anatolia or North-West Iran. An almost identical lay-out is used on the lid of a bowl signed by Muhammad ibn 'Ali ibn Husain in the Victoria and Albert Museum (inv.no.M719-1910, cat.no. 64, pls 74 and 75, my fig.67). A design that has elements of both Mahmud's subdivision into cartouches and Zain al-Din's subdivided half palmettes can be seen on the cover of a bowl in the Musée du Louvre (OA 7525, pl.23, fig.68).

A further feature of Zain al-Din's work is that where he does organise his design on covered bowls into cartouches, they take the form of either lobed limes or trefoils. Both are seen on the British Museum and Bargello box covers (inv.no.1891 6-23 3, cat.no.62, fig.66 and inv.no.Bronzi 317, cat.no.61), and on the Walters Art Gallery incense burner (inv.no.54.2236, cat.no.22, pls 65 and 66, fig.70b). However, on the incense burner, the arrangement of the motifs is closer to that of Mahmud than on other examples of Zain al-Din's work. The main medallion is subdivided by six trefoils that develop from a central interlaced twelve-pointed star. The intervening six points carry small "spatially" inlaid trefoils to counterbalance the larger, linear subdivisions. Where Mahmud in his own characteristic way signed his incense burner (Bologna, Museo Civico Medievale inv.no.2110, cat.no.2, fig.71, pl.31) at the centre of the hemisphere, Zain al-Din confined his signature to a more discreet position in a section of the border (fig.71, pls 65 and 66, fig.71b). Although more sophisticated and complex than Mahmud's early work, Zain al-Din's is comparable to it in that he too employed small- and large-scale arabesques to add depth and variety. On the incense burner, for example, panels of heavy inlaid split palmette arabesques alternate with lobed cartouches of fine engraved stems.

Section 10. Counter-Change Motifs.

The description "counter-change" is given to those motifs whose positive and negative forms are either the same or related to each other.⁽¹⁵⁹⁾ The art of such motifs is a peculiarly Islamic one; the absolute accuracy which was required posed a challenge apparently congenial to the Islamic love of complexity and over-all, interlocking pattern. The trefoil lends itself to a counter-change arrangement, particularly because its size can be varied to accommodate the swell of a true or elliptical sphere. The fashion for counter-change trefoils seems to have been at its height in the later Mamluk period.⁽¹⁶⁰⁾ The repoussé and inlaid trefoil counter-change on a bowl in the name of Qa'itbay, published by Dr Melikian-Chirvani⁽¹⁶¹⁾ adapts itself to the curve of the bowl perfectly. A counter-change trefoil motif is also found on the upper part of the neck of a ewer in Lyons,⁽¹⁶²⁾ made for Zain al-Din Jawhar al-Mu'ini, who was one of Qa'itbay's emirs. The presence of counter-change ornament on "Veneto-Saracenic" metalwork adds yet another link to the chain that binds it to Mamluk Egypt and Syria. It was, however, also popular in Safavid Iran,⁽¹⁶³⁾ underlining the problems of attribution to a specific area on the basis on a single feature.

This brings to an end the discussion of the motifs most commonly found on "Veneto-Saracenic" metalwork. It is an introduction only to a huge task that needs to be undertaken - the systematic amassing, labelling and cross-referencing of motifs in Islamic metalwork, a task that unfortunately lies outside the restrictions imposed on a doctoral thesis. In the absence of a signature or date on many objects, it is hoped that this approach, taken in conjunction with other criteria, such as the method of construction and materials used, and seen in relation to other objects that are dated or whose patron is known, may offer a way forward in deciding where a particular piece originated.

We now come to the final part of this study, which is a handlist of objects that have been previously ascribed to the "Veneto-Saracenic" school. They are non-representational and bear no inscription, other than in some cases the signature of their master. By applying the approach previously described, that is by looking at the techniques, the individual motifs and the aesthetic of their arrangement, the objects have been assigned either to Group A (Mamluk), Group B (Anatolian or north-western Iran) or Group C (European). It is of course possible that future work, more data or a different approach may produce alternative solutions to the problem of attribution both in general and also in particular cases.

Notes

(1) Gay:1877,348, "*unum calefactorium argenti deauratum cum nodis curiosis ponderis unius unciae. unum calefactorium de cupro deaurato cum nodis insculptis pond. 10 uncias*", Inventory of York Cathedral, under "*Chauffe-mains*"; see also under "*pomme chauffe-mains*", 253. Laborde:1872,265 under "*escaufaile*" or "*pomum*", "1295, *decem poma calefactoria argentea ad diversa laboreria ponderis 17 m.7 unc*".

(2) Gyllensvärd:1957,fig.11,pls 5,15 and examples in the 1981/1982 exhibition, Kunstschatze aus China, in Zürich, Berlin, Hildesheim, and Köln, catalogue, 341.

(3) Paris Bibl.Nat.ms Fr.19093, illustrated Hahnloser:1972, pl.71.

(4) The spheres appear in inventories listed in Latin as *pomum*, *poma*, *pomum/poma ad calefaciendum manus*, *pomum calefactoriu*, *calfactorium*; in French as *chauffe-mains*, *escaufaile*, *pomme à chauffer mains*, *pume*, *globe*, *boule*; in English as handwarmer, chafing ball, chalfer, chauffeur; in Italian as *scaldamani*, *scaldino*, *scaldamento*, *poma da scaldare le mani*; in German as *Wärmepfel*; and in Spanish as *poms per calfar les mans*.

(5) Or rotating-pins; Professor Hahnloser translated Villard's "*toreillons*" by "*Drehzapfen*".

(6) Codex Atlanticus, fol.288 recto, Codex Madrid I, see Gibbs-Smith:1978,66, no.57. The drawing is annotated by Leonardo with the words "method of making rings that can turn in every direction such as the mariner's compass".

(7) The Oxford Dictionary of the Christian Church,1372 defines Transubstantiation thus: "In the theology of the Eucharist, the conversion of the whole substance of the bread and wine into the whole substance of the Body and Blood of Christ, only the accidents (i.e. the appearances of the bread and wine) remaining." It is worth underlining that the question of Transubstantiation was the centre of debate in the 16th century after the Lutheran revolt and was re-affirmed at the Council of Trent (Session xiii. cap.4)(11 October 1551) "with a minimum of technical philosophical language".

(8) Schiedlausky:191984,28-29, quoting Dehaisnes 169,240; Laborde, 14,2,265,no.4243; Labarte, n.21,229 no.2056; others listed under *ibid*,224 no.989; 238, no.2166; 290,no.2719; 291,no.2723; 324,no.3108. "*Une pomme d'argent à chauffer mains en yver, blanche à esmaulx d'Arragon.....pesant deux marcs deux onces dix estellins*".

(9) The significance of the reference to Venice is similar to the references to objects made *alla damascina* discussed in Chapter 2. Entries of "*Ouvrage de Venise*" in relation to metalwork were listed by Gay (449-50) dating from 1298 to 1595. The precise meaning of the term is, as always, difficult to determine. The common factor in the description seems to be the objects were silver-gilt (*deaurato* (1298), *d'argent doré* (1393, 1420, 1467, 1510, 1560, 1595) or gold

(1376, 1399, 1416, 1467). The decoration was raised above the ground (*images elevatas* (1298), *eslevé à la façon de Venise* (1467)) or inset with jewels (*garnie d'or à ouvraige de Venise et de plusieurs petits esmaulx de pelite roons* (1416)). There is therefore, I think, no reason to suppose the description relates in any way to the present study.

(10) "*Becafique*", "*beccafico*" - "a small migratory bird of genus *sylvia* (garden warbler *Sylvia Borin* of warbler family *sylviidae*) much esteemed as dainties in the autumn when they have fattened on figs and grapes" OED:1922,746. It seems the birds were pickled in vinegar and sent as gifts to the courts of Europe.

(11) Quoted by Scerrato:1967, 29,Cat.no.32, who was citing Amari, BISO I, 1876,129-130 and Schiaperelli, Ibn Hamdis,ns.140,211-218.

(12) In mediaeval Europe too the sphere contained inherent references to the world, power and the sun. Paintings of Christ as Salvator Mundi or God the Father as creator both included a sphere. (See for example, Hugo van der Goes, The Trinity Panel, National Galleries of Scotland (on loan from H.M. the Queen); C. Thompson and L. Campbell, Hugo Van der Goes and the Trinity Panels in Edinburgh, Edinburgh, 1974, pls 3,16. Hieronymus Bosch, Creation of the World, Prado Museum, Madrid; R.H. Wilenski, II, 1960, pl.172. The image of the power of the ruler as God-granted is perfectly illustrated in a miniature (fol.261) decorating Psalm 109 in the Breviary of Charles V where God the Father sits on the Throne bearing the orb, the French king kneeling before Him; F. Avril, Manuscript Painting at the Court of France, London, 1978, pl.37.

(13) "*Buxur*" as transliterated by Wolff's (119), who translated it as "*Parfum*".

(14) (1) British Museum, inv.no.78 12-30 682; Lane-Poole:1886/2, 209-13 and fig. 81; Migeon:1907, vol. 2,204 fig.160; Migeon:1927, vol. 2,70 fig.249; Wiet:1932, app.no.87; Mayer:1933,112; Barrett:1949,xiv-xv,xxiii, pl.22; Arts:1976,187,no.210; Atil:1981,58-59,no. 11; eadem:1985,173, fig.62. (2) Cairo, formerly Harari Collection 235 Har, L.A. Mayer Memorial Institute, D.S. Rice Archive no. 169/13, dated 1271, unpublished; (3) Florence, Museo Nazionale del Bargello, inv.no.370C, for Bahadur al-Hamawi, died 1293. Descriptions appear in Appendix II, nos.1-7 and cat.no.42.

(15) A unicorn attacking an elephant; a leopard attacking a hare; a lion attacking a wild ass; a griffin attacking a sphinx (?)

(16) On the "*wag-waq*" or animal scroll, see Ackerman:1937, Baer:1983, 180-181. On sphinxes and harpies, see Baer:1965.

(17) As, for example, on the ceiling of the Cappella Palatina, Palermo - Monneret de Villard:1950,fig.245; Ettinghausen:1977,50, ill.46. The eagle has a single griffin-like head and holds in its talons two quadrupeds. Supported and enclosed within the bird's body is a haloed prince being carried up into paradise, symbolised by two female busts within roundels linked to the eagle's wings. The

apotheotic associations of the image are intensified by another of two griffins drawing a chariot in which a figure is borne aloft (see Grube:1966,col.pl.12). In his right hand, or resting on it, is a golden sphere with a face. The princely figures are interpreted as Alexander. For a discussion on the significance of this figure, see Cahn:1978,121-2,fig.53.

(18) Four birds with necks knotted to form an animal wheel are found on the Henderson box (British Museum 78 12-30 674), Rice:1950,629, fig. 1, pl. 14; see too Ettinghausen:1957, 328-330,345-350, Baer:1983,172-175. It is interpreted as a solar symbol, whose ancient meaning was still understood in Mediaeval Islam.

(19) Victoria and Albert Museum, inv.no.24-1889; Melikian-Chirvani:1982,347-48, no.163.

(20) Ettinghausen:1957,fig.13, previously in the Kevorkian Foundation. A large hemispherical basin inscribed with the name of Salah al-Din Yusuf, Ayyubid Sultan of Aleppo and Damascus from 1236-1260, is in the Royal Ontario Museum, Toronto, gift of F. Cleveland Morgan; H. Salam-Liebich: 1976,382,fig.5. This, however, is even larger than the Kevorkian basin, having a diameter of 51 cm. compared to 40.5 cm. and is thus even further removed from the small bowls of the present study.

(21) "Wade Cup", Cleveland Museum of Art; Rice:1955/2, Ettinghausen:1957. Ettinghausen believed it to have been made in Khurasan before the Mongol onslaught of the early 1220s. "Vaso Vescovali", British Museum; Pinder-Wilson:1951, Hartner:1973/4.

(22) The decorative schemes are either an all-over split-palmette quatrellobe repeat (fig.41) (for example cat.no.4) or knots and running stem borders alternating (for example cat.no.10).

(23) British Museum, inv.nos.1878 12-30 708, 1878 12-30 709, 1878 12-30 710 (cat.nos 167,168,169).

(24) British Museum, inv.no.1778 12-30 707, Museum für Islamische Kunst, Berlin I.542, Musée des Arts Décoratifs, Paris, inv.no. 5125 (cat.no.171).

(25) Musée des Arts Décoratifs, Paris, inv.no.7565, Kunstmuseum, Düsseldorf, inv.no.19412 (cat.nos.170, 172), private collection, Switzerland (Treasures of Islam:1985,no.291).

(26) Sarre:1906,43, no.96 pl.VI, Museum für Islamische Kunst, Berlin inv.no I.3596, Martin:1902, pl.16 (these are possibly the same object; the present location of both is unknown and the signature, drawn by F. Sarre and shown on the plate by F.R. Martin, appears identical, as does the overall decoration).

(27) Isabella Stewart Gardner Museum, Boston, inv.no.unknown; Walters Art Gallery, Baltimore, inv.no.54.528, Courtauld Institute, London, inv.nos 44, 89 (with a gadrooned umbo)(cat.nos.176,177), and British Museum, inv.no. 1891 6-23 7 (with a gadrooned umbo)(cat. no.175).

(28) Baltimore, Walters Art Gallery, inv.no.54.527 (cat.no.163), London, Courtauld Institute, inv.no.77 (cat.no.180), Turin, Museo Civico, inv.no.892B (cat.no.181), Vienna, Österreichisches Museum für Angewandte Kunst, G0.81 (cat.no.197), Berlin, Museum für Islamische Kunst, inv.no.I.3615 (cat.no.191), London, Victoria and Albert Museum, inv.nos 2061-1855,M.463-1922,258-1894,259-1894,194-1887 (cat.nos 184-187), Spink and Son Ltd., May 1977, no.159 (cat.no.178), London, British Museum, inv.nos 1878 12-30 712,1878 12-30 713,1878 12-30 714,1957 2-2 3 (cat.nos 193-195). This list excludes similar salvers of engraved brass that are not inlaid with silver.

(29) Paris, Musée du Louvre, inv.no.OA 7526 (cat.no.162), British Museum, inv.no.1878 12-30 705 (cat.no.160), State Hermitage, Lenin-grad, inv.no.VC 235 (cat.no.161).

(30) Now belonging to the Dean and Chapter of Canterbury; Alexander and Binski:1987,526 no.729.

(31) "*al-'ala'*" occurs on two objects in the Cairo Museum of Islamic Art, inv.nos.2331 (pl.XXIX) dated Rabi' 740/September 1339, and 446, pl.LXXIII, 1336-1338; Wiet:1932,50,161. I have been unable to find a form corresponding to the second part of the inscription, "*al-ma'lili'*".

(32) The "Dolgelly chalice and paten", the chalice signed by Nicholas of Hereford, dated c.1230-50, belonging to Her Majesty the Queen on loan to the National Museum of Wales, Cardiff; Alexander and Binski:1987,307-8,no.258.

(33) Musée des Arts Décoratifs, inv.no.7565, not seen but described in the catalogue as "*Plat à ombilic central en forme de rosace à cinq lobes alternant avec cinq pointes ...*"

(34) See, for example, engraving by Giuseppe Maria Mitelli of 1677 of Museo Cospiano, Cavalli:1985,9; Scenes from the life of S. Augustine, National Gallery of Art, Dublin, where not only are three salvers with a central umbo on display but another, its centre hidden by a ewer, rests on the floor; B. van Orley, The Virtue of Patience, left wing, Brussels, Welinski:1960, pls 102, 254 (detail 258). As a part of a dining service that also has liturgical connections, see D. Bouts, Last Supper (documented 1464-1467), Louvain S. Pierre, Wilenski:1960, pl.58. A deeper ablutions bowl can be seen with a towel on the lower shelf to the right of the painting.

(35) The iconography of the maze or labyrinth is no concern of the present study; here it probably represents the *impresa* of the Gonzaga family, found in the decoration of their palaces with the motto "*forse che si, forse che no*" (Hall:1974,185).

(36) Sarre:1906,43, fig.35,pl.VI, no.96 "*15-16. Jahrhundert, Arbeit eines orientalischen Meisters, Namens Muhammed*" Martin:1902,pl.16, labelled "*Venedig um 1550*".

(37) Christies', April 1988,161, no.368, now British Museum.

(38) Melikian-Chirvani:1982,400. Dr Melikian-Chirvani explains the word is a diminutive form of *tabaq*, a circular tray either large or small. Both forms appear on dishes (399), the smaller variety apparently used to carry bowls (400). However, the Sarre/Martin salver would appear too deep for this purpose.

(39) See, for example, Master of Flémalle, Madonna at the Fireplace, State Hermitage, Leningrad; The Werl Alterpiece, right wing, Prado, Madrid and Jan van Eyck, Lucca Madonna, Städelches Kunstinstitut, Frankfurt - Panofsky:1971,pls 96, 97 and 252.

(40) Jan van Eyck, The "Lucca" Madonna, Städelches Kunstinstitut, Frankfurt, Panofsky:1971,pl.123. The more common form in Western art is, however, Type (iii), see note (41) below.

(41) On carpets from Anatolia in Western art, see Erdmann:1977 and Yetkin:1981.

(42) See Allan:1986,106. See too Carpaccio, Dream of St Ursula, Scuola di Sant' Orsola cycle, Accademia, Venice; Vision of St Jerome (also identified as St Augustine or Cardinal Bessarion, his identity is under dispute), Scuola di San Giorgio degli Schiavoni; Lauts:1962,229, cat.no.5, pls 21-22, 232, cat.no.14, pls 102, 104, 105.

(43) The split-palmettes within cusped lime-medallions on the dish, Victoria and Albert Museum, inv.no.374-1897 and on a bowl ("*kashkuI*"), Victoria and Albert, inv.no. 755-1899, are treated in the same way. See Melikian-Chirvani:1982,251-52,254, nos.110,112.

(44) See, for example, Petsopoulos:1982,38,44,46, nos 22,35,37 and Wiet:1932,pl.XXXV,inv.nos 4395-6.

(45) British Museum, Or.6810, folio 27 verso, 1494. Gray:1977,117.

(46) See Victoria and Albert Museum, inv.nos.438-1876, 222-1892; Melikian-Chirvani:1982,256-57, no.115 (described as "wine-bucket") and 305-307, no.135 (described as "bath-pail").

(47) Atil:1975,146-47, no.79; Atil, Chase and Jett:1985,176-180, no.24.

(48) See for example Melikian-Chirvani:1982,149,fig.55; Victoria and Albert Museum, inv.nos 559A-1876,559-1876,789-1901,553-1876,5-1886,6-1886,453-1888,760-1889; nos 91,92,95,96,97,98,102,103,104. These bowls display a variety of profiles, but none has a handle.

(49) See for example Atil:1981,74-75,96,105,nos.20,29,37; Musée du Louvre, inv.no.MAO 331; Museum of Islamic Art, Cairo, inv.no.15131; Metropolitan Museum of Art, New York, inv.no.1978.551. This last

example seems more probably a Persian bowl, the inscription on its body being a reference to itself, and the incised decoration close to that on Victoria and Albert Museum, inv.no.554-1876, Melikian-Chirvani:1982,222,no.103. The verses read

"I am a bowl which contains all meaning
My helper ... wishes and aspirations.
My colour and workmanship are beautiful and flattering
and the excellence of my construction ..." (Atil:1981,105).

(50) For other examples of this shape, see Pope and Ackerman:1938, pl.1306,1307.

(51) Dr Allan dated the example in the Ashmolean Museum, Oxford, inv.no. 1969.8 to the 12th or early 13th century (Allan:1979,fig.6b).

(52) Lauts:1962,229,pl.22. The cycle of Sant' Orsola dates from 1490 - c.1498, The Dream being dated to c.1495. A similar bucket hangs behind the Virgin in the Master of Flémalle's Mérode Altarpiece (Panofsky:1971,pl.91) and Hubert and Jan van Eyck's Annunciation panel, Ghent Altarpiece, completed 1432 (Panofsky:1971,pls 142,144).

(53) "Dinanderie" is the term given to cast brass, copper and bronze objects for ecclesiastical and domestic purposes made in Dinand (Belgium) in the 12th, 13th and 14th centuries. See Tavernor Perry:1910 and Cruikshank Dodd:1969, 221, quoting the corpus of O. von Falke and E. Meyer in Die Bronzegeräte des Mittelalters, Berlin, 1935.

(54) See Hildburgh:1941, who thought the ewers were made in Europe and decoration in the Islamic style. In particular Dr Hildburgh suggested the ewers were made in Mosan towns or South Germany from whence they were imported into Venice. The trading connections between Venice and these northern countries have already been mentioned in connection with carpets (note 40).

(55) Although no exact replicas are portrayed, see, for example, Master of Flémalle, The Werl Altarpiece, right wing, Prado, Madrid (Wilenski:1960,pl.44) where a spouted ewer stands in a salver behind S. Barbara and another, with no spout but an open lid, stands on the table holding flowers. Two stand on a shelf in Roger van der Weyden's Birth and Naming of St John the Baptist, left panel, Kaiser Friedrich Museum, Berlin (Panofsky:1971, pls 202-3). A spout-less ewer acts as a flower-vase in a panel by Roger van der Weyden of Madonna and Saints in the Städelsches Kunstinstitut, Frankfurt (Panofsky:1971, pl.194) while a spouted version stands in a salver in the Annunciation panel of his Triptych in the Musée du Louvre, Paris (Panofsky:1971, pls 172-73). Like a single candle and glass, water was a symbol of virginity (see Hall:1974,326-27).

(56) Kunstgewerbemuseum, Hamburg, inv.no.1910.343; Sotheby's, April 1985, no.120.

(57) See Marks:1983,52,pl.16, reg.no.38/455, Lion-Goldschmidt and Moreau-Gobard:1980,257, no.197 which bears a Portuguese coat-of-arms. The bridge between spout and body is here broken.

(58) Corinthian oinoche, c.625-600 BC, British Museum (inv.no. not given), Richter:1959,304, fig.420, also with a trefoil lip. Three black figure examples by Athena Painter, Boardman:1974, figs 253, 254,255.

(59) Pitti Palace, Buckton:1984,fig.5c. The form reflects Sassanian silver ewers, for example in the Cleveland Museum of Art, Buckton:1984,fig.5g; in the Metropolitan Museum of Art, inv.no. 67.10, Atil, Chase and Jett:1985,63,fig.22; and early Islamic successors, see British Museum, inv.no. 1959 10-23 1, Baer:1983,136, fig.114. See too Buckton:1984,fig.5b for a hardstone example previously in the collection of Louis XIV of France.

(60) Made of agate, the ewer has a neck rib, trefoil pinched lip, short foot and handle. Buckton:1984,90-95,no.5.

(61) Arts:1976,214, no.251, National Museum, Damascus, inv.no. 10415A.

(62) Buckton:1984,222-227,no.32, rock-crystal. Another ewer in the San Marco Treasure (Buckton:1984,216-221) with the name of Caliph al-'Aziz bi'llah (reigned 975-996), is pear-shaped rather than ovoid and has no foot but nonetheless is related to the group.

(63) Melikian-Chirvani:1982,26-28, fig.2 in Herat Museum; also Freer Gallery of Art, inv.no.45.13, Atil, Chase and Jett:1985,62-64,no.3.

(64) See Baer:1983,93-100, who showed the form was composite in origin, being derived from a vase and an oil-lamp (fig.72, private collection). The most widely published example of the type is in the Metropolitan Museum of Art, inv.no.44.15 (Baer:1983 fig.74); see too Victoria and Albert, inv.no.592-1898, Melikian-Chirvani:1982,114-118, no.45; Pope and Ackerman:1938,pls 1322,1324,1325,1326, 1327,1328. This form is made of sheet metal.

(65) For example, the size of a copy of a treaty between Florence and Sultan Jaqmaq in 1442, Archivio di Stato, Florence, Amari:1863, doc. 68 (II:42) now listed as Diplomatico, Atti Publici, Spoglio 3, no. 4 were given by Professor Wansbrough (1965,482) as 21.5 cm. x 14.5 cm., while those of a copy of the same treaty in the Correr, Venice (Fondo Dona dalle Rose, cod. 217) are 29.5 cm. x 22 cm. The Correr papers were published by Amari:1863 and more recently in Wansbrough:1961 and 1965.

(66) Amari:1863,I doc. 77, (I:40). Wansbrough:1965,497-509.

(67) See for example Atil:1981,128-9,nos.46,47, Corning Museum of Glass, New York, inv.no.69.1.2 and Toledo Museum of Art, inv.no. 66.1.15.

(68) The same flat circular form is found on a pilgrim's flask of the late 15th - early 16th century in the Musée National de la Céramique, Sèvres, inv.no.15472, Petsopoulos:1982,90-91,no.72. Here

the neck is short and made of metal; it may be later. A long-necked water-bottle (no.73) has a knop half-way up the neck, reflecting a metalwork original (1982:28).

(69) Lauts:1962,232-33, no.14, pls 104-105. Carpaccio's paintings date from 1502, when the Patriarch of Jerusalem presented the Scuola di San Giorgio degli Schiavoni with a relic of St George.

(70) Qur'an XXXIII:45; LXXI:15; XXV:62, LXXVIII:13.

(71) See Melikian-Chirvani:1976,287,290 fig.7.

(72) The knot is also called "Solomon's knot", "endless knot", "single knot" and "lover's knot". See Rainey:1973,177.

(73) Flury:1921, pl.VI. Here twists (1 h-i,k and 16) and knots (1 d-e, 2 e-f, 4 c-g, 5 e and g, 7 g, and 9 c and e) begin to proliferate on the uprights. Flury earlier traced the most characteristic development of this style to Amida (Diyar Bakr) in the 11th and 12th centuries. His pl. XXV (A12) shows a simple triangular knot on a single *hasta*, while pl. XXVII shows a plait (A6) and a twist (A18) on parallel *hastae*.

(74) State Hermitage Museum, Leningrad CA 12687, Ettinghausen:1943.

(75) The "Vaso del Rota", Baer:1983, fig.179.

(76) Washington, Freer Gallery of Art, inv.no.55.10, Atil, Chase and Jett:1985,137-147, no. 18.

(77) Inv.no. NE-Pl2, Baer:1983, fig.176.

(78) Walters Art Gallery, Baltimore, inv.no.54.459, Atil:1981,65-66,no.16.

(79) Cairo, Museum of Islamic Art, inv.no.7949, Wiet:1932,135, pl.XXVIII; Museum of Islamic Art, inv.no.3751, Wiet:1932,89-90, pls XXXVIII-XXXIX; Museum of Islamic Art, inv.no.3169, Wiet:1932,76-77, pl.LVI.

(80) For similar developments in calligraphic decoration, see El-Said and Parman:1976,132-133; Seherr-Thoss:1968, pl.40.

(81) Burgoyne and Richards:1987,589-605, figs.63,11.

(82) Cairo, Museum of Islamic Art, inv.nos.4072,4297, Wiet:1932,pls XXXIII and XXXIV, 383,pl.XVI, 384,pl.XVII; Atil:1981,101,no.34.

(83) El-Said and Parman:1976, Ardalan:1973, Critchlow:1976, Wade:1976.

(84) Humbert:1980, Wilson:1988.

(85) A variant of the pattern can be seen on a wooden door from the Sarij Madrasah, Fez, El-Said and Parman:1976,pl.2; Masjid-i Jami', Varamin, pl.3 and Seherr-Thoss:1968,pl.57; minaret of Jam, el-Said and Parman:1976,pl.9; the base of a late 13th-century box in the Cleveland Museum of Art, inv.no.44.822a, Baer:1983,133,fig.111; the base of a casket in the Victoria and Albert Museum, inv.no.459-1873, early 14th century, Melikian-Chirvani:1982, no.90, pl.90C.

(86) See too Bourgoin:1973, pl.III.

(87) See for example the attached column and panel on the tomb tower at Kharraqan, Seherr-Thoss:1968, pls 18,19; at Erzurum, Seljuk tomb tower and Cifte Minareli *medrese*, Seherr-Thoss:1968, pls 102,104.

(88) See tinned and engraved copper basin, Madina Collection, New York inv.no.M10, Atil:1981,106-7, no.38; tray, Embassy of the Arab Republic of Egypt, Washington, Atil:1981,108-9, no.39; stacking lunch-boxes in the name of the Emir Taimur, Wiet:1932, pl.LXVI, Museum of Islamic Art, Cairo, inv.no.3953; lunch boxes, Ashmolean Museum Department of Eastern Art, inv.no.1959.7, and Victoria and Albert Museum inv.no.1242-1888, Allan:1971,157,159,figs.1,3.

(89) See Chapter 1, Section 6; Victoria and Albert Museum, inv.no.374-1897, Melikian-Chirvani:1982,251-52, no.110, Victoria and Albert Museum, inv.no.433-1876, Melikian-Chirvani:1982,255, no.113.

(90) For a recent review of the work done into the origins of the motifs, see Rawson:1984.

(91) See Rainey:1973,181 and above, fig. TK1A.

(92) See Rawson:1984,199-222 and especially figs.176,177,192 e,f.

(93) A 19th-century example by a Persian craftsman, Mirza Akbar, survives in the Victoria and Albert Museum, Gombrich:1979,pl.36.

(94) Lings:1976, pl.16, Collection of Aqa Mahdi Kashani, Tehran.

(95) Lings:1976, pl.35, Türk ve Islam Müzesi, Istanbul,inv.no.T107.

(96) Lings:1976, 119,pl.59, National Library, Cairo, 72, part 22.

(97) See Lings:1976, pls 36,40,52,61,69,70,71,73,74,79,82,89.

(98) Lings:1976, pl. 109, Qur'an in British Library Or.1405, ff. 399v-400r, written 975/1568.

(99) Lings:1976, Nurosmaniye Mosque Libray, 27, f. 155r.

(100) Lings:1976, pl.5, Iran Bastan Museum 4289, Tehran.

(101) Lings:1976, pl.3, Nurosmaniye Mosque Library 27, ff. 154v-155r.

- (102) Lings:1976, pl.19, Topkapi Saray Library, Istanbul EH.42, ff.95v-96r.
- (103) Pope and Ackermann:1938, vol.VI, pl.1471.
- (104) Seherr-Thoss:968, pls 40,41,43,71,117,118.
- (105) Miles:1974,89-98,93, pl. Va.
- (106) Rice:1950, pl.14a,b,16.
- (107) Rice:1957/3, Musée du Louvre, basin inv.no.5991 dated 1238-40, fig.27, pls 8,9, 15e, Cleveland ewer, fig.10,pl.2; see also Musée du Louvre, ewer dated 657/1258, pl.13 c,d.
- (108) Rice:1949, Rice:1957,pl.14b,fig.39.
- (109) Inv.no. LP16, Atil:1981,76-8,no.21 and especially detail on cover.
- (110) Compare the triple division of a tridachna shell from Sippar, Iraq, 8th-7th centuries BC in the British Museum, Rawson:1984,fig.188.
- (111) For example, incense burner, British Museum inv.no.1978 12-30 682, dated c. 1270, Atil:1981,58-9,no.11; for a discussion on sun symbolism see Allan:1982,86-89.
- (112) For example, penbox, signed by Mahmud ibn Sunqur, dated 680/1281, British Museum, inv.no.1891 6-23 5, Baer:1983,fig.205, "Vaso Vescovali", British Museum, inv.no.1950 7-25 1, Baer:1983, fig.207; base of Mamluk bowl, Museo del Bargello, inv.no.364C, Baer:1983,fig.211.
- (113) For example, candlestick, Museum of Islamic Art, Cairo, inv.no. 15.121, Baer:1983, fig.159; bowl, Galleria Estense, Modena, inv.no. 2062, Baer:1983, fig.162; penbox, British Museum, inv.no.1991 6-23 5, Baer:1983,fig.163; candlestick dated 734/1334, Victoria and Albert Museum, inv.no.M.716-1910, Baer:1983,fig.165.
- (114) For discussion on birds and trees as paradisaical images, see Cahn:1978, 24-28.
- (115) For example, basin, Victoria and Albert Museum, inv.no.740-1898, Atil: 1981,69-71,no.18; penbox, British Museum, inv.no.1881 8-2 20; candlestick, Berlin, Museum für Islamische Kunst, inv.no.I.590, Baer:1973,fig.22; casket, Victoria and Albert Museum, London, inv.no.459-73, Baer:1973,fig.23.
- (116) For example, candlestick, Cairo, Museum of Islamic Art, inv.no.1657, Atil:1981,57-8,no.10; base of candleholder, New York, Madina Collection M12, Atil:1981, 67,no.17; ewer, Cairo Museum of Islamic Art, inv.no.15089, Atil:1981,72-3,no.19; Allan:1982,no.15, incense burner made for Muhammad ibn Qala'un. For a discussion of the bird/lotus association see particularly Allan:1982,88.

- (117) For example, "Vaso Vescovali", British Museum, inv.no.1950 7-25 1, Baer:1983,fig.154; Metropolitan Museum of Art, New York, inv.no.91 1 581, Baer:1983,fig.164; penbox, British Museum, inv.no.1891 6-23 5, Baer:1973, fig.31, my fig. 30b; basin, Musée du Louvre, inv.no.LP.16, Atil:1982,76-8, no.21, my fig. 18.
- (118) Berlin, Museum für Islamische Kunst, inv.no.B200, Sarre:1912,32, no.68, fig.32.
- (119) Melikian-Chirvani:1982,241, fig.63, p. 241.
- (120) Hartner:1938,113-54, fig.26,29.
- (121) Hartner:1938,138, figs.16-18, 22-23, 26-29 showing the knot in conjunction with the dragon's head.
- (122) Ettinghausen:1972,47.
- (123) Appendix I figs.6,7, especially TB1a, TB4, TB5, TB6, TB7 and TB8, all of which use the same principles as Mahmud.
- (124) Compare, for example, a footed basin of c. 1520 made in Iznik or Kutahya, Victoria and Albert, inv.no.7409-1860, Rogers:1983,108, no.107, central roundel; ceramic pilgrim's flask, Sèvres, Musée National de la Céramique, inv.no.15472, Petsopoulos:1982, no.72; silver bowl, previously collection Ibrahim Beyhun, Petsopoulos:1982,44, no.21; silver bowl, Freer Gallery of Art, inv.no.54.115, Atil, Chase and Jett:1985,186-7,no.26; dish, Iznik "Abraham of Katahya type", Gemeentemuseum, The Hague no. OC(I) 6-1936, Arts:1976,265,no.406.
- (125) Rawson:1984,199-222, see especially the border of a stone carpet from the North Palace of Ashurbanipal, Nineveh, c. 645 BC, British Museum, fig. 187 and black and red figured ware, figs.192e,f.
- (126) El-Said and Parman:1976,8, figs.11a,b. It can also be seen reproduced from W. von Wersin (Das elementare Ornament, 1953) in Gombrich:1979,fig.81.
- (127) Pope and Ackerman:1938, vol.III,2509, fig.834, Vol.VI, pl.1373B.
- (128) Komaroff:1984,pl.60, my fig.44b, Pope and Ackerman:1938, vol.VI, pl.1373A. See my Appendix figs. T9-T10 TH2 variants.
- (129) Briggs:1946,fig.10, a reconstruction of a carpet in a miniature by Bihzad dated 1488; fig.53 rug, Shah Nameh of Sultan 'Ali Mirza.
- (130) For example, in quatrelobes to either side of Sura heading XCVI,1 of London, British Library Or.1009, f.303v., Lings:1976, pl.43; and in lobed roundels at either side of the headings at top and bottom of a frontispiece to a Qur'an made *waqf* by Sultan Barsbay in 828/1425, Cairo, National Library 96, vol. 11, ff. iv-vr, Lings:1976,pl.79.

(131) Lings:1976, pl.79 as note (127) above. The device is laid over the central panel of the two halves of the frontispiece. It is treated here as one element of a repeat pattern rather than an isolated motif, quarter repeats being shown at each corner.

(132) On a *KhatchK'ar* stone cross of the 13th century, L'Art:1971, no.217; a silver box charm from the Monastery of Tatev dated 1666, L'Art:1971, no.264.

(133) For example, Museo Correr, Venice inv.no.XI 1342, cat.no.76.

(134) See above; the stems seem to have been imported into the Mamluk repertoire by Mawsili masters. Chinese design had been introduced to the Near East after the Mongol invasions of the thirteenth century via Iran, which had been joined to China under the rule of the Il-Khans. The Mongols adopted Chinese dress and delighted in their silver, lacquer and silks. See Rawson:1984,146 ff.

(135) Inv.no.2064, Arts:1976,188, no.212, for a view of the roundel; Rice:1957/1, pls VII,VIII.

(136) Basin, British Museum, inv.no.1851 1-4 1.

(137) Pen-box, British Museum, inv.no.1881 8-2 20.

(138) Wiet:1932, pls XXXIII,XXXIV; Atil:1981,101, no.34; bowl, New York Metropolitan Museum of Art, Edward C. Moore Collection, inv.no.91.1.565, Atil:1981,102-3,no.35.

(139) For a discussion of the mixture of tradition and innovation in the metalwork of Qa'itbay, see Newhall:1987,177-96.

(140) Both can be seen, for example, on the Metropolitan Museum of Art bowl, inv.no.91.1.565, Atil:1981,102,no.35.

(141) Cairo, Museum of Islamic Art,inv.no.183, Atil:1981,86-7,no.25.

(142) New York, Madina Collection, inv.no.M11, Atil:1981,110-1,no.40.

(143) For an interpretation of the device, see Baer:1968,25-26; and Baer:1983,279-282. It is also referred to by Dr Melikian-Chirvani (1982, 211) who thought it represented the *Cheshme-ye Aftab*, "the fount of the sun", the fish symbolising the fount itself.

(144) Flat tripod stand, Victoria and Albert Museum, inv.no.M.823-1928, Melikian-Chirvani:1982,178-9, no.78.

(145) See El-Said and Parman:1976,2-6; Critchlow:1976,75; Wilson:1988, nos.18-23.

(146) See Wilson:1988, nos.24-25 for variations using eight circles.

(147) Embassy of the Arab Republic of Egypt, inv.no.15944, Atil:1981,108-9, no.39.

(148) See Allan:1982,87-8.

(149) Kessler:1976,30-33,pls 33,34.

(150) For example, dish-cover, Victoria and Albert Museum, inv.no. 177-1976; bath-pail, Victoria and Albert Museum, inv.no.222-1892; bowl cover, Victoria and Albert Museum, inv.no.404A-1884; Melikian-Chirvani:1982,304-7,320-1, nos.134a,135,145.

(151) Victoria and Albert Museum, Ardebil Carpet; Grube:1966, frontispiece, colour detail in Rawson:1984, pl.6, which illustrates use of elongated blue split palmettes in the central medallion, each leaf made up of individual red elements. See too textile edging on second tent's entrance in copy of Jami's Haft Aurang, copied for library of Abu'l-Fath Sultan Ibrahim Mirza, cousin to Shah Ismail II dated 1556-65 in Mashhad, "Majnun before Layla's Tent", Freer Gallery of Art; Grube:1966,fig.83.

(152) Ceramic panel, Blue Mosque, Tabriz, Burckhardt:1976,48; cut tilework from Darb-i Imam mausoleum, Isfahan, Burckhardt:1976,61, pl.33; ceramic tiles of outer dome of mosque of Shaikh Lutf-Allah, Isfahan begun 1603, Blunt:1976,100; ceramic tiles decorating interior of Masjid-i Shah, Isfahan built c.1613, Burckhardt:1976,pls 158,162,163; and ceramic tiles on dome of Masjid-i Shah, Safadi:1978,106,pl.120..

(153) Inv.no.YY.999, ff.1a-2b, Rogers and Ward:1988,66,68-9,no.15a, signed by Sayyid Asadallah al-Kirmani.

(154) Lings:1976,190, nos.90-94, Dublin Chester Beatty Library 1545, ff.2v-3r; Istanbul, Topkapi Saray Library, HS 25, ff.iv-2r; Manchester, John Rylands University Library, 34, ff.iv-2r; British Library Or.11544, ff.3r-4v.

(155) See, for example, cover of Petsopoulos:1982, rectangular border tile previously collection of Princess Kamal el-Din; and Sotheby, Parke, Bennett, April,1987,100, no.367, quoting examples in Istanbul, including the Pir Ali Pasha Mosque and Golden Way of the Topkapi Palace.

(156) See for example, tile of c.1560 in private collection, Bonn, Petsopoulos:1982,95,no.104; tile, probably made Damascus late 16th century, Petsopoulos:1982,96,no.109 and border tiles also made Damascus, private collection, London, Petsopoulos:1982,96,no.110; two border tiles both similar to those in tomb of Hazret-i Süleyman in Diyarbakir, Petsopoulos:1982,96,nos.113-4.

(157) British Museum, (inv.no. unknown) Rogers:1983,114-5,no.128.

(158) Goodwin:1977, pl.19. Although restored, it is believed that the design follows the original model.

(159) See, for example, Gombrich:1979,Ch.III,89-90, figs.99-105.

(160) For example, dome of Mausoleum of Shaykh 'Abdullah al-Manufi (1394-1440), Kessler:1976,pl.27, my fig.73a.

(161) Victoria and Albert Museum, inv.no.1325-1856, Melikian-Chirvani:1969/1,124-126,figs.27,28, my fig.73b.

(162) Musée des Beaux-Arts, inv.no.D.669, Melikian-Chirvani:1969/1, 119-124, figs.19-25, especially fig.24.

(163) See, for example, lid of dish, Victoria and Albert Museum, inv.no. M.177-1976 (my fig.72a); bath-pail, Victoria and Albert Museum, inv.no.222-1892; bowl cover, Victoria and Albert Museum, inv.no.405A-1884; Melikian-Chirvani:1982,304-7,320-1,nos 134a,135, 145.

Catalogue

The catalogue entries follow the same order in each example: on circular objects the description begins at the centre and works outwards. On ewers, buckets and candlesticks, the description starts with the base design (if known) and works up the walls to the rim, shaft or cover.

- (1) Spherical Incense burner Plate 48.
Washington D.C., Freer Gallery of Art
Inv.no.39.58.

Brass, spun, turned and pierced, engraved and inlaid with silver and black compound. D.12.5 cm, weight 543.0 gm. Gimbal intact. Group A.

Motifs : Concentric bands, central medallion fig.11, border fig.16b FlA, main band fig.2b K2B and fig.2e K2E, fig.4a K3A.

Published : Atil:1975,148,no.80; Atil, Chase and Jett:1985,171-175,no.23 (with full bibliography).

- (2) Spherical Incense Burner Plate 31.
Bologna, Museo Civico Medievale
Inv.no.2110.
Signed (on both half-spheres) (1) '*amalun*' (or '*amala*) *Mahmud*
(2) *al-Kurdi*.

Brass (in need of cleaning), cast, pierced, engraved and inlaid with silver. D.(top) 7.8 cm., D.(interior base) 7.5 cm. Gimbal lost, two halves of sphere closing by means of pins and bayonet slots. Group B.

Motifs : Both halves of sphere decorated in same way and pierced throughout, each hole being surrounded by a narrow band of silver. Work is unlike any other sphere in this catalogue.

(a) Ground covered by tiny, intricate arabesques of spirals and interlace, inlaid with silver.

(b) Over this a motif based on 4 fleurs de lys, reminiscent of inverted cloud-collar pattern (Cammann:1951,figs 1,2), in "linear" inlay (fig.71a). In two of these, the signature '*amal Mahmud al-Kurdi*'. It is noteworthy that they do not include the title *al-mu'allim*, as his signature appears elsewhere (see Chapter 1, Section 6). Form of inscriptions vary slightly on top and bottom hemispheres, as can be seen on Plate 31, both backed by cross-hatched ground.

(c) Counter-motif of pointed trefoils, fig.71a. No subdivision into concentric bands of decoration.

Published: Mayer:1959,no.XV; Scerrato:1967,no.32; Schiedlausky:1984, no.14.

(3) Spherical Incense Burner

Bologna, Museo Civico Medievale

Inv.no.2111. (Probably to be identified with D.S. Rice Archive No.169/2, L.A. Mayer Memorial Institute for Islamic Art, Jerusalem).

Brass, pierced, engraved and inlaid with gold and silver. D.(top) 13.7 cm, D.(bottom) 13.6 - 13.8 cm (distorted). Gimbal lost. Group A.

Motifs : Concentric bands, central medallion with blank shield, scrolling arabesque, narrow border fig.16b FlA with small quatrelobes fig.52b, broad band with roundels fig.35a, with small roundels fig.52h between.

Unpublished.

(4) Spherical Incense Burner

Bologna, Museo Civico Medievale

Inv.no.2112. (Probably to be identified with D.S. Rice Archive No.169/7).

Brass, pierced, engraved, overcleaned to bright yellow, all traces of inlay lost but probably originally inlaid with silver and black compound. D.(top) 12 cm, D.(base) 11.11 cm-11.6 cm (distorted). Gimbal broken but complete. Group B.

Motifs : All-over repeat, roundels fig. 44a variant with same motif in interstices, small roundels fig.52b between.

Unpublished.

(5) Spherical Incense burner

Bologna, Museo Civico Medievale

Inv.no.2114.

Heavy bronze, with a brown patina, cast and spun, pierced, engraved and inlaid with silver and black compound. D.11.5 cm, D.(base internal) 10.11 cm, D.(base) 11.4 cm. Gimbal intact. Group B.

Motifs : 12 panels, central medallion fig.44a variant, fig.52a, interstices fig.55a variant, border fig.16d.

Unpublished.

(6) Spherical Incense Burner

Bologna, Museo Civico Medievale

Inv.no.2115. (Probably to be identified with D.S. Rice Archive No.169/1).

Brass, pierced, engraved and inlaid with silver. D.(top) 11.7cm., D.(bottom) 12.00 cm, with band soldered to walls to hold closing device and gimbal. Gimbal intact. Group B.

Motifs : 12 panels, small central roundel fig.59b variant, panels alternately fig.51f and octagonal geometric interlace (El-Said and Parman:1976,30,pl.14, Bourgoin:1973,67), interstices fig.4i K5 and fig.55a. Ground filled with small engraved "curls" or "hooks" to emulate arabesque. (For similar background treatment, compare basin made for Sayf al-Din Uzbek, c. 1482-1495, Victoria and Albert Museum (inv.no.206.1892); brass basin in the Poldi-Pezzoli Museum, Milan, or another in the Musée des Beaux-Arts, Lyon (inv.no.E.558), illustrated in Melikian-Chirvani:1969, pls.20,15.)

Unpublished.

(7) Spherical Incense Burner

Bologna, Museo Civico Medievale

Inv.no.2116.

Brass, pierced, engraved and originally inlaid with silver and black compound. D.(top) 9.8 cm, D.(bottom) 9.8 cm. Gimbal intact. Group A.

Motifs : Concentric bands, central medallion with border Appendix fig.T7b TB5 variant repeated to form 12-part "sunburst" fig.41b, fig.16 FlA variant, fig.2d K2D, fig.4g K4A, fig.6c K5B, fig.44a variant, fig.55e variant.

Unpublished.

(8) Spherical Incense Burner

Bologna, Museo Civico Medievale

Inv.no 2127(?) (Probably to be identified with D.S.Rice Archive No.169/6).

Half only. Brass, pierced, engraved, inlaid with silver and originally with black compound. D.13.6 cm, H.6.5 cm. Hemisphere has been heavily cleaned and seems to have been lined with tin. Group A.

Motifs : Concentric bands, large central roundel with dart and shield alternation (9-repeat fig.39a variant), fig.16b FlA variant, fig.44a variant, fig.2d K2D, fig.4 K3C.

Unpublished.

- (9) Spherical Incense Burner
Brussels, Musées Royaux d'Art et d'Histoire
Inv.no.5005.

Brass, pierced, engraved and inlaid with silver. D.9.5 cm. Gimbal intact. Group B.

Motifs : 16 panels in arrangement reminiscent of bowl, Museum für Islamische Kunst, Berlin, inv.no.73,1153 (Hauptmann von Gladiss and Kröger:1985,123,no.313), minute arabesque ground, central medallion 8-pointed star formed by two intersecting quadrangles, panels filled with geometric interlace around 8-pointed stars, fig.14 A4A variant.

Published: Jansen:1964,no.148,fig.133; Montgomery-Wyau:1978,no.21; Schiedlausky:1984,no.23.

- (10) Spherical Incense Burner
Berlin, Museum für Islamische Kunst
Inv.no.I 8/71.

Bronze, engraved and inlaid with silver and black compound. D.12.5 cm. Gimbal intact. Group A.

Motifs : Concentric bands, central roundel dart and shield alternation (5-repeat fig.36a variant), fig.16b FlA variant, small roundels fig.52g, main band roundels fig.44a variant and alternating panels fig.2d K2D, fig.4f K3F, fig.6 K5B, interstices fig.4i K5, "curl" ground.

Published: Museum für Islamische Kunst:1971,no.655,pl.91; 1979,no.655,pl.91; Scerrato:1967,no.32,pl.30a.

- (11) Spherical Incense Burner
Hamburg, Museum für Kunst und Gewerbe
D.S.Rice Archive No.169/19.

Bronze, pierced, engraved and inlaid with gold and silver. D.11.5 cm. Group B.

Motifs : All-over repeat, roundels fig.44a variant, fig.55a variant. Unpublished.

- (12) Spherical Incense Burner
Venice, Museo Correr
Inv.no.XII 10.

Brass, pierced, engraved and originally inlaid with silver (traces only remain). D.(top) 11 cm, D.(bottom interior) 10.2 cm. Sphere stilted, when joined 2 halves form oval. Gimbal intact. Group B.

Motifs : 10 panels, ground roughly incised with parallel lines and bud-like "curls", 6 interlocking circles forming central 6-point star, centre marked by small disc, octagonal geometric interlace, fig.51f variant, fig.51e variant, fig.55a variant. Unpublished.

- (13) Spherical Incense Burner
Venice, Museo Correr
Inv.no.XII 11.

Plate 49.

Brass, pierced, engraved, inlaid with silver and originally with black compound. D.(top) 13 cm, D.(bottom interior) 12 cm. Gimbal intact. Group A.

Motifs : Concentric bands, central roundel with dart and shield alternation (7-repeat fig.36a variant), AlB variant, roundels fig.10a variant, medallions fig.42a variant.
Unpublished.

- (14) Spherical Incense Burner
Venice, Tesoro di San Marco
Sanctuary Inventory 21 (Reliquary of arm of S. Pantaleone).

Brass, pierced, engraved, originally inlaid with silver and black compound. D.14 cm. Arm, Byzantine work of XIII-XIV centuries probably from Dalmatia, hand probably later Venetian, mounted on adapted spherical incense burner. Group A.

Motifs : Concentric bands, central medallion invisible, main border, roundels fig.44a variant and panels fig.2d K2D, fig.4g K4A, fig.6c K5B.

Published: Hahnloser:1965,145,cat.no.145,pls CXXVIII,CXXIX (with bibliography); Grube:1974,figs 92,93.

- (15) Spherical Incense Burner
Florence, Museo Nazionale del Bargello
Inv.no.Bronzi 299. D.S. Rice Archive no.169/15.

Described as "beaten brass, pierced, inlaid with silver" in Curatola and Spallanzani:1981,7-9, no.1. D.11 cm, H.11 cm. Gimbal restored, suspension hook. Documented as one of two "*profumieri damasceni*" belonging to Cosimo I (1519-1574), in Medici collection from 1553 (Spallanzani:1980). In 1587 recorded in inventory of Ferdinand I (1549-1609) and from 1589 in Sala della Tribuna in Uffizi Palace, Florence with incense burner cat.no.(16) below. In 1638 both incense burners were put in "*stipo*" (cabinet) made for Sala della Tribuna, where they remained throughout 18th century. Group A.

Motifs : Roundels fig.43b, 4- and 6-petalled "whirling" rosettes in interstices, fig.16d variant, cusped fillet borders.

Published: Spallanzani:1980; Curatola and Spallanzani:1981,7-9,no.1.

(16) Spherical Incense Burner

Florence, Museo Nazionale del Bargello, Florence
Inv.no.Bronzi 292. D.S.Rice Archive No.169/14.

Beaten brass, pierced, engraved and inlaid with gold and silver.
D.13 cm; H.14 cm. History as cat.no.(15) above, from 1784 recorded
under separate inventory numbers. Gimbal intact, suspension hook.
Group A.

Motifs : Concentric bands, central roundel fig.1c, border fig.16c F2,
main band roundels fig.35b, panels fig.2a and c K2A, K2C variants,
fig.4h K4B. "Curl" arabesque ground.

Published: Spallanzani:1980, Curatola and Spallanzani:1981,10-
12,no.2.

(17) Spherical Incense Burner

Florence, Museo Nazionale del Bargello
Inv.no.369 (Carrand collection). D.S. Rice Archive No.169/16.

Brass, cast, pierced, engraved and inlaid with silver. D.13.5 cm.
Gimbal intact, still with traces of burned substance. Group A.

Motifs : Concentric bands, central roundel fig.59a, border fig.16b
FlA variant, small roundels fig.52i variant, main band roundels
fig.44a variant, panels fig.2d K2D, fig.4c K3C variant.

Unpublished.

(18) Spherical Incense Burner

Florence, Museo Nazionale del Bargello
Inv.no.371 (Carrand Collection).

Bronze, pierced, engraved and inlaid with silver. Half sphere only,
diameter unknown. Group A.

Motifs : Concentric bands, central roundel with dart and shield
alternation (9-repeat fig.39a), border fig.16b FlA variant, main band
roundels fig.44a variant, panels fig.2d K2D, fig.4g K4A, fig.6c K5B,
interstices fig.4i K5 variant.

Unpublished.

(19) Spherical Incense Burner

Naples, Museo Capodimonte
Inv.no.112089/1128 (Collection Borgia).

Brass, pierced, engraved and inlaid with gold and silver. D.12.5 cm.
Later addition of suspension hook. Group A.

Motifs : Concentric bands, central roundel with dart and shield
alternation (fig.36a variant), border fig.16b FlA variant, main band
roundels fig.44a variant, panels fig.2d K2D fig.4b K3B variant,
fig.6c K5B variant, in interstices fig.4i K5 variant, 6-petalled
rosettes.

Published: Scerrato:1967,cat.no.32,pl.30a; De Petra,Nota,18,n.1128;
Espositone Orientale, 1877,228,no.20 (or 21).

- (20) Spherical Incense Burner
Naples, Museo Capodimonte
Inv.no.112090/1129 (Borgia Collection).

Brass, engraved, pierced and inlaid with gold and silver. D.12.5 cm.
Profile slightly stilted, giving a "waisted" look. Suspension hook added. Group A.

Motifs : Concentric bands, central medallion unseen, borders fig.16b FlA variant, main band roundels fig.44a variant, panels knots fig.2e K2D, fig.4g K4A, small roundels 6-petalled rosettes.

Published : Scerrato:1967,cat.no.31,pl.30b; De Petra,Nota,18,n.1129; Esposizione Orientale 1877,228,no.21 (or 20).

- (21) Spherical Incense Burner
Milan, Museo Poldi Pezzoli
Inv.no.765.

Bronze, pierced, engraved and inlaid with silver and black compound.
D.(interior) 11 cm. Group A or possibly C.

Motifs : Concentric bands, central medallion with dart and shield alternation (fig.36a variant round 8-pointed star), border fig.15a AlB, main band roundels fig.49a and 49c and variant round 8-pointed star, oblong medallions fig.15b A4C, ground incised "curls" and hatching. Small roundels 4 circle intersection fig.59b, interstices fig.55e. Confused arrangement of arabesque infill may indicate European copy.
Unpublished.

- (22) Spherical Incense Burner Plates 65,66.
Baltimore, Walters Art Gallery
Inv.no.54.2236 A,B.
Signed on both halves (1) *naqqash^{un}* (or *naqqasha*) (2) *Zain al-Din* (fig.71b)

Brass, pierced, engraved and inlaid with silver and probably black compound. D.8.6 cm, H.8.9 cm. Group B.

Motifs : Concentric bands.

(1) Central roundel (fig.70b) 12-pointed star developing into alternating points bearing "spatially" inlaid trefoils and "linear" fleur de lys sections, filled with arabesques. Where inlay lost under trefoils, ground can be seen to be pocked with "teeth" to hold precious metal. Arabesques fill interstices.

(2) Border of four panels of running stems of 3-strand guilloche (fig.13b A2B) with signature panels between on "curl" ground. Plain fillet border links to central medallion and main border.

(3) Main border : Divided into sections of light and heavy arabesque infill, areas enclosed by "linear" inlay. Heavy "linear" arabesques of split palmettes emerging from fillet frames of intermediary motifs. The design is controlled and lucid if complex, the contrast between areas underlined by use of minute, engraved and larger-scale "linear" arabesque ornament.

Published: Ettinghausen:1966.

(23) Spherical Incense Burner
Private Collection, Switzerland.

Sheet brass, pierced and inlaid with gold, silver and black compound.
D.12.5 cm. Group A.

Motifs : Concentric bands, central medallion with dart and shield alternation (fig.36a variant), border fig.16 FlA variant with triangular "ivy" leaves, main band roundels with fig.44a variant, panels between knots fig.2d K2D and twists fig.4c K3C variant. 8-petalled rosettes.

Published : Treasures of Islam:1985, Exhibition Catalogue no.290.

(24) Spherical Incense Burner
Paris, Musée du Louvre
Inv.no.Oriental/MAO.

Plate 43.

Brass, pierced, engraved, inlaid with gold, silver and black compound (with red glow in raking light). D.12.7cm, H.7.0 cm. Group B.

Motifs : Concentric bands. Central medallion with fig.44a variant, broad band of scrolling arabesque around based on 6 circles (compare, for example, ground of bucket, Chicago, Institute of Fine Arts, inv.no.1964.563, Baer:1983,fig.196). Narrow border fig.16b FlA variant with lobed quatrefoils fig.52b variant. Main band 6 large roundels fig.44a variant, with 6 small roundels between fig.52h.

Published : L'Islam dans les collections nationales, 1977, no.492.

(25) Spherical Incense Burner
London, British Museum
Inv.no.1891 6-23 6.

Brass, pierced, engraved, inlaid with silver, gold and black compound. D.11.0 cm. Group B.

Motifs : All-over arabesque emanating from 12-pointed star at centre of apex and base. Organised in split palmette shield-shaped motifs, each leaf with enclosed gold point.

Unpublished.

(26) Spherical Incense Burner
London, British Museum
Inv.no.1882 3-21 19.

Brass, pierced, engraved and inlaid with silver and black compound. D.16.75 cm. Group A.

Motifs : Concentric bands, central medallion with dart and shield alternation (8-repeat, fig.36a variant round 8-pointed star), border fig.16b FlA variant, main band with 4 roundels fig.44a variant, 4 oblong medallions 2 with fig.2 K2 variant fig.4 K4 variant fig.6 K5B variant, 2 with dart and shield alternation fig.42a variant.

Unpublished.

- (27) Spherical Incense Burner
London, British Museum
Inv.no.1882 3-21 20.

Brass, pierced, engraved and inlaid with silver and black compound.
D.34.5 cm. Gimbal missing. Group A.

Motifs : Concentric bands, central medallion with 6 panels of guilloche chain motif (compare figs 22b and 22c), interstices 55a variant. Main band 3 roundels fig.44a variant, 3 panels knots fig.2d K2D variant fig.4 K3 variant.
Unpublished.

- (28) Spherical Incense Burner
London, British Museum
Inv.no.1878 12-30 683.

Brass, pierced, engraved and inlaid with silver. D.12.7 cm.
Gimbal intact. Group A.

Motifs : Concentric bands, central medallion of 4 circles intersecting with 8-pointed star at centre. 8 roundels, fig.44a variant, border fig.16b FlA variant, wide band with 8 roundels of fig.44a variant linked by small roundels with 6-petalled rosettes. Interstices fig.52b variant.
Unpublished.

- (29) Spherical Incense Burner
London, British Museum
Inv.no.1878 12-30 684.

Brass, pierced, engraved and originally inlaid with silver. D.11.4 cm. Gimbal lost. Group A.

Motifs : Concentric bands, central medallion of 6 circles intersecting (fig.58 variant) filled with fig.52b variant. Border fig.16b FlA variant, wide band of 3 roundels fig.44a variant, 3 panels fig.2d K2D variant and fig.4 K3 variant.
Unpublished.

- (30) Spherical Incense Burner
London, British Museum
Inv.no.1878 12-30 685.

Brass, pierced, cast and spun, engraved and inlaid with silver and black compound. D.(lid) 7.6 cm, D.(base) 8.3 cm. Gimbal lost. Unusual because closed with screw fitting rather than usual bayonet slots and pins. Group B.

Motifs : All-over design based on elegant "linear"-inlaid geometric shapes emanating from central 12-pointed star formed by two intersecting 6-foils. Points alternately bear trefoils and develop into divisions. Ground inlaid with minute arabesques reminiscent of work of Mahmud al-Kurdi.
Unpublished.

- (31) Spherical Incense Burner
London, Victoria and Albert Museum
Inv.no.M.58-1952.

Brass, pierced, engraved and originally inlaid with silver and black compound. D.12.4 cm. Gift of W.L. Hildburgh. Gimbal intact. Group A.

Motifs : Concentric bands, central medallion with dart and shield alternation (6-repeat fig.36b variant), border fig.16c F2 variant, main band roundels fig.44a variant, panels with fig.2 K2 variant, fig.4 K3 variant. "Curls" ground.

Published: (ref.only) Hildburgh:1941,18.

- (32) Spherical Incense Burner
London, Victoria and Albert Museum
Inv.no.M.14.1946.

Brass, pierced, engraved and originally inlaid with silver. Half only. D.12.1 cm. Group A.

Motifs : Concentric bands, central medallion with dart and shield alternation (4-repeat fig.38a variant), border fig.16b FlA variant, four small roundels with fig.44a variant, wide main border with roundels fig.44a variant and oblong panels fig.2d K2D fig.4g K4A variant fig.6c K5B variant, between small roundels with 6-petalled rosettes.

Unpublished.

- (33) Spherical Incense Burner
London, Victoria and Albert Museum
Inv.no.4704-1859.

Brass, pierced, engraved and inlaid with silver. D.14.2 cm. (Purchased from Collegio Romano Museum, Rome). Silver handle added later to apex. Group A.

Motifs : Concentric bands, central medallion of 6 intersecting circles (fig.58 variant), fig.52b variant. Main band, roundels fig.44a variant, interstices fig.52b variant, narrow border fig.16b FlA variant, 6-petalled rosettes.

Unpublished.

- (34) Spherical Incense Burner
London, Victoria and Albert Museum
Inv.no.1541-1856.

Brass, pierced, engraved, previously inlaid with silver and later gilded. D.12.7 cm. Suspension hook added. Group B.

Motifs : From central roundel with fig.44a variant, 12 panels each filled with guilloche chain fig.14b A4A variant. In interstices fig.55e variant.

Unpublished.

- (35) Spherical Incense Burner
London, Victoria and Albert Museum
Inv.no.576-1899.

Brass, pierced, engraved and inlaid with silver. D.12.7 cm. Group A.

Motifs : Concentric bands, central medallion of dart and shield alternation (6-repeat fig.36b variant), border fig.16b FlA variant with quatrelobes fig.44a variant, main band roundels heavily pierced fig.44a variant, panels fig.2d K2D variant and fig.4g K4A variant.
Unpublished.

- (36) Spherical Incense Burner
Paris, Musée des Arts Décoratifs
Inv.no.25591.

Brass, pierced and engraved, probably inlaid with silver. D.9.5 cm.
Gimbal intact.

Motifs : unseen. Catalogue description reads "Decorated on exterior of both hemispheres with 8-pointed star enclosed by interlace."
Unpublished.

- (37) Spherical Incense Burner
Paris, Musée des Arts Décoratifs
Inv.no.3648.

Brass, pierced, engraved and inlaid with silver. D.13 cm. Half sphere only.

Motifs : unseen, no description of decoration.
Unpublished.

- (38) Spherical Incense Burner
Paris, Musée des Arts Décoratifs
Inv.no. Dp.Cluny 181, no.14556 5125.

Brass, pierced, engraved and inlaid with silver. D.13 cm.

Motifs : unseen, catalogue reads "decorated with geometric interlace and arabesques. Bands of little rosettes".
Unpublished.

- (39) Spherical Incense Burner
Paris, Musée des Arts Décoratifs
Inv.no.29249.

Brass, pierced, engraved and inlaid with silver. D.13 cm, H.6.5 cm.

Motifs : unseen, catalogue reads "decorated with concentric zones of arabesques and bands of leaves and geometric interlace".
Unpublished.

- (40) Spherical Incense Burner
Rome, Museo Artistico Industriale
Number unknown, present location unknown, perhaps Palazzo
Barbarini.

Details unknown.

Published: References in Scerrato:1967, Schiedlausky:1984,77,no.31.

- (41) Spherical Incense Burner
Location unknown, probably private collection
D.S. Rice Archive No.169/20.

Brass, pierced and inlaid with silver. Details unknown. Group A.

Motifs : Concentric bands, central medallion fig.57b, border fig.16b
FlA variant, 6-petalled rosettes, main band roundels fig.44a variant
panels fig.2 K2 variant, fig.4 K3 variant, ground with "curls."
Unpublished.

- (42) Spherical Incense Burner
Cairo, previously Harari collection
Inv.no. Harari 235, D.S. Rice Archive No.169/13.

Brass, pierced, inlaid with silver, possibly gold and black compound.
D.13.3 cm. H.13 cm. Rice's notes state "Dated 670/1271" but not
visible on photograph. Gimbal intact. Profile slightly stilted.
Group A.

Motifs : Concentric bands, central medallion invisible; border
fig.16b FlA variant, main band roundels fig.48c, panels fig.54.
Unpublished.

- (43) Spherical Incense Burner
Jerusalem, L.A. Mayer Memorial Institute for Islamic Art
Inv.no.M.247-76.

Brass, pierced, engraved and originally inlaid with silver and black
compound. D.(top) 13.0 cm, D.(base) 13.5 cm. Gimbal intact. Group A.

Motifs : Concentric bands, central medallion with dart and shield
alternation (fig.36a variant). Designs of top and bottom vary.
Top border fig.12c, 5-petalled rosettes, roundels fig.25a variant,
oblong medallions fig.21b, interstices K5 variant; bottom angular
form of border fig.12c, 6-petalled rosettes, roundels with lotus
blossoms fig.51a, oblong medallions fig.13c A4B, interstices fig.55a,
"curl" ground.
Unpublished.

(44) Spherical Incense Burner

Jerusalem, L.A. Mayer Memorial Institute for Islamic Art
Inv.no.M.63 (on display).

Brass, pierced, engraved and inlaid with silver, gold and black compound. Dimensions not known. Group A.

Motifs : Concentric bands, central medallion 6-pointed star, gold discs between points; border fig.16 FlA variant, main band roundels as centre, panels knots fig.2 K2 variant.
Unpublished.

(45) Spherical Incense Burner

München, Stadtliche Museum für Völkerkunde
Inv.no.26-N-51.

Brass, pierced, engraved and originally inlaid with silver and black compound. D.13-13.4 cm. Group A.

Motifs : Concentric bands, central medallion of dart and shield alternation (fig.36a variant), border fig.16b FlA variant, quatre-lobes, main band roundels fig.44d, panels fig.2d K2D variant fig.4g K4A, "curl" ground.
Unpublished.

(46) Spherical Incense Burner

Düsseldorf, Kunstmuseum
Inv.no.174/12119

Brass, pierced, engraved and originally inlaid with silver and black compound. D.8 cm. Group B.

Motifs : 8 panels from central medallion, alternately filled with octagon interlace (El-Said and Parman:1976,30-1, pl.14 variant), lotus blossoms fig.51f variant and guilloch-chain fig.14b A4A variant. "Curl" ground, interstices fig.55a.
Unpublished.

(47) Spherical Incense Burner

Private Collection
Aron no.17.

Brass, cast or spun, pierced, engraved and inlaid with silver (badly worn) and black 'bituminous substance'. D.13.2 cm. Gimbal lost.
Group A.

Motifs : Concentric bands, central medallion of 6 circles intersecting fig.58, round fig.44a variant, border fig.16a, main band with roundels fig.44a variant, panels fig.2d K2D fig.4b K3B, small roundels fig.52i variant, 5-petalled rosettes, "curl" ground.
Published: Allan:1986,102-3,no.17.

- (48) Spherical Incense Burner
Private Collection
Aron no.18.

Brass, cast or spun, pierced, engraved and inlaid with silver and black substance. Half only, D.13.1 cm. Gimbal lost. Group A.

Motifs : Concentric bands, central medallion of dart and shield alternation (6-repeat fig.36b variant), border fig.16a F1, main band with roundels fig.44a variant, panels fig.2d K2D fig.4c K3C variant, small roundels fig.52i variant, "curl" ground.
Published: Allan:1986,104,no.18.

- (49) Spherical Incense Burner
Private collection
Aron no.19.

Brass, pierced, engraved and inlaid with silver and black compound. D.10.5 cm. Gimbal hoops intact, cup lost. Probably Group B.

Motifs : Concentric bands, main roundel fig.35d, border fig.17d, main band with roundels fig.35d, oblong medallions octagon interlace (El-Said and Parman:1976,30-1, pl.14), small roundels fig.52f. Despite Mamluk arrangement, individual motifs do not correspond to Egypto-Syrian mould but to objects made in Anatolia or Jazira.
Published: Allan:1986,105,no.19 where provenance is described as "Jazira, late 15th century".

- (50) Spherical Incense Burner
Copenhagen, David Collection
Inv.no.63/1979.

Brass, pierced, engraved and inlaid with silver, most of which is lost. D.12.7 cm. Gimbal lost. Group A.

Motifs : Concentric bands, central medallion of 8 circles intersecting fig.59c, border of small rhombs, trefoils, main band with 8 large roundels fig.44a, small roundels between fig.52b variant, 6-petalled rosettes.
Unpublished.

- (51) Spherical Incense Burner
Cologne, Kunstgewerbemuseum
Inv.no.H.1005.

Brass, pierced, engraved and inlaid with silver and black compound. D.9.7 cm. Group B.

Motifs : All-over division into irregular sections developing from central 8-petalled "flower", each with dart fig.22e variant, "curl" ground. Despite the initial impression of confusion, a logical arrangement of the motifs, which are reminiscent of Timurid designs, point to a Group B rather than Group C provenance.

Published: Katalog der Sammlung Clemens, Cologne 1963, no. 627;
Schiedlausky: 1984, 72, cat. no. 12, pl. 40, where described as "handwarmer,
Venice".

- (52) Spherical Incense Burner
Cologne, Kunstgewerbemuseum
Inv. no. H. 394.

Brass, pierced, engraved and inlaid with silver and black compound.
D. 11 cm. Gimbal intact, central cup unusually large and traces of
burned substance visible. Group A.

Motifs : Large central medallion with octagon interlace (El-Said and
Parman: 1976, 30-1, pl. 14 variant), wide band with 4 roundels fig. 44a
variant and 4 oblong medallions, octagon interlace, interstices
fig. 55a, "curl" ground.

Published: Schiedlausky: 1984, 72, no. 13, where described as
"handwarmer, Venice or Mosul, 16th century".

- (53) Spherical Incense Burner
Karlsruhe, Badisches Landesmuseum
Inv. no. G. 3298.

Brass, pierced, engraved and inlaid with silver. D. 10 cm.

Motifs : Details unknown.

Published: Schiedlausky: 1984, 74, no. 22.

- (54) Spherical Incense Burner
Opava (previously Troppau), Slezské Muzeum
Inv. no. 09.39/Cat. no. U35E.

Brass, engraved and inlaid with silver. D. 10.3 cm.

Motifs : Details unknown.

Published : Schiedlausky: 1984, 75, no. 24.

- (55) Spherical Incense Burner
Vienna, Historisches Museum der Stadt
Inv. no. 126.044.

Brass, pierced, inlaid with silver. D. 14 cm. Gimbal intact,
suspension ring.

Motifs : Details unknown. Described by Dr Schiedlausky as "Turkish,
made in second half of 17th century, part of Turkish booty".

Published: Schiedlausky: 1984, 75, no. 26 (full bibliography).

- (56) Spherical Incense Burner
Present location unknown
Sotheby's, London, 12 October 1981, no. 157.

Brass, inlaid with silver. D. 10.1 cm.

Published: Schiedlausky: 1984, 75, no. 28.

- (57) Spherical Incense Burner
Present location unknown
Brimo do Larousilhe, Paris, 1966.

Bronze or brass, pierced, inlaid with silver. D.13 cm.

Motifs : Details unknown.

Published: Schiedlausky:1984,75,no.27 (with bibliography).

- (58) Spherical Incense Burner
Present location unknown
Sotheby's, London, October 1986, no.165.

Brass, pierced, inlaid with silver and black compound. D.13.3 cm.
Top : Group A, bottom : Group B.

Motifs : two halves unmatching. (1) Top : concentric bands, central medallion of dart and shield alternation (6-repeat fig.36b variant), narrow border fig.16b FlA variant, wide band of roundels fig.44a variant, and panels fig.2d K2D fig.4b K3B variant fig.6c K5B variant, interstices fig.4i K5 variant, small roundels fig.52i variant, 6-petalled rosettes. (2) Bottom : 12 panels, central roundel unseen, infill fig.51f variant, border fig.16d variant.

Published: Sotheby's, London, October 1986,52,no.165.

- (59) Hemispherical box and cover Plate 14.
Paris, Musée du Louvre, Paris
Inv.no.OA 6009.
Signed (1) *naqqash^{un}* (or *naqqasha*) *al-'abd al-faqir* (2) *Zain al-Din yarju al-maghfirat*.

Brass, engraved and inlaid with silver. Measurements unknown.
Metal has dull yellow appearance, perhaps due to over-cleaning.
Profile Type A, flat lid. Group B.

Motifs : Lid. In centre, European shield with unidentified arms of heraldic bird, perhaps an eagle. Tripartite design developing from centre, heavy "linear" scrolling split palmette arabesques between "linear"-inlaid divisions E1 and E2, all-over fine arabesque ground.

Box. Signed on rim, panels fig.16c F2 variant between. 'Ain has v-shaped mark above, similar to Mahmud al-Kurdi, see cat.nos 161,162,163. (For second part of inscription, translated "who hopes for pardon", compare Wiet:1932,128,inv.no.6573; 145,inv.no.9008; 146,inv.no.1010; dated mid-15th to 16th century; Appendix numbers 416, 430 and 480, before 1517. It is noteworthy that of these inscriptions listed by Wiet, only one in addition to Zain al-Din is used by the craftsman "who hopes for forgiveness" - by Mahmud al-Kurdi, App.no.480). Decoration as lid.

Published: Mayer:1959,91 no.III (where inventory number given as Mediavel 8531).

(60) Hemispherical box and cover

Venice, Museo Correr

Inv.no.XII 8.

Signed (1) *naqqash^{un}* (or *naqqasha*) *al-'abd al-faqir* (2) *Zain al-Din 'Umar*.

Brass, cast and spun, engraved and inlaid with silver. D.(box) 14.0 cm, total height (with lid, which has a slight dome), 6.0 cm, D.(lid) 14.2 cm, inner rim D. 12.7 cm. Profile Type A, slightly domed lid. Group B.

Motifs : Lid. Overall geometric divisions in "linear" inlay, split palmette leaves in tripartite arrangement from central hexagon. Unlike cat.no.59 above, no variation in texture. Fine arabesque ground.

Box. Signed on rim as cat.no.59 above, between panels of guilloche fig.13b A2B variant and heavy "linear"-inlaid panels of stems fig.54b variant (compare Briggs:1946 fig.16). 'Ain has similar v-shaped mark as cat.no.59 but here signature reads Zain al-Din 'Umar. Decoration similarly arranged in tripartite divisions from central hexagon but more complex and includes fig.69b E1 variant. Published: Mayer:1959,87 no.I, under 'Umar.

(61) Hemispherical box and cover

Florence, Museo Nazionale del Bargello

Inv.no.Bronzi 317

Signed (1) *Naqqash^{un}* (or *naqqasha al-'abd al-faqir* (2) *al-mu'allim Zain al-Din 'Umar*.

Beaten brass, engraved and inlaid with silver. D.16.3 cm, H.9.5 cm. Profile Type A, flat lid. In collection of Ferdinand I de' Medici (1549-1609), from 1589 in Sala della Tribuna, Galleria degli Uffizi (see cat.nos.15 and 16 above). Group B.

Motifs : Lid. Similar to cat.no.60 above, develops from 6-pointed star at centre of hexagon in 6-part design, fig.69c E2 alternately reversed, split palmettes figs 62c and 62d variants.

Box. Signature invisible because under lid. Mayer (1959,87) stated (in translation) "Incised by the poor slave, Master Zain ad-Din 'Umar". As lid, design develops in 8-part design from central star, now 8-pointed; cruciform in negative between fig.69c E2, enclosing complex fig.62h variant. Narrow border fig.16c F2 variant. Fine scrolling arabesque ground.

Published : Mayer;1959,87, no.II as above cat.no.60 under entry 'Umar; Spallanzani:1980,ill.30; Curatola and Spallanzani:1981,17-19, no.4.

(62) Hemispherical box and cover

London, British Museum

Inv.no.1891 6-23 3.

Signed (1) *'Amal^{un}* (or *'amala*) *al-mu'allim Zain al-Din* (2) *yarju al-maghfirat^a min mawlahi.*

Brass, cast and spun, engraved and inlaid with silver. D.15 cm.
Profile Type A, flat lid. Group B.

Motifs : Lid (fig.66). 4-part division from central concave-sided octagon, fleurs de lys and split arabesque (fig.62d) emerging from alternate points. Lime-medallions, fig.62c and fig.69b El. "Linear" and "spatial" inlay, fine arabesque ground.

Box. Similar arrangement as lid, 4-part division round central concave-sided octagon. Border fig.16c F2 variant.
Published : Mayer:1959,91 no.IV,pl.XV.

(63) Hemispherical box and cover

Present location unknown

Christies' 11 June 1986, no.430

Signed (1) *Naqqash^{un}* (or *naqqasha*) *Zain al-Din* (2) *ibn al-mu'allim 'Umar al-(?)muhasin.*

Brass, engraved and inlaid with silver and black compound. D. 15.5 cm. Profile Type A, slightly domed lid. Group B.

Motifs : Lid. Signed on rim as cat.nos 59-62, in two panels. Decoration arranged in 6-part design around central hexagon. Split palmettes, fleurs de lys. Minutely scrolled arabesque ground. Despite claim of catalogue that this object establishes the relationship between Zain al-Din and Zain al-Din 'Umar, it is possible that three men were working in a similar style from one workshop - Zain al-Din, Zain al-Din 'Umar and Zain al-Din ibn 'Umar. The similarities and differences between the objects signed by the masters are reminiscent of the similarities and differences between Timurid ewers from the same workshop and it would be safe, therefore, to assume a close relationship between them, especially in view of comments Simone Sigoli with regard to Damascus in 1384-5 (see Chapter 2, Section 1.A).

Box. 8-part arrangement, centred on rhomb. As lid, uses "linear" split palmettes to outline fleurs de lys and fig.69b El variants. Ground covered by minute arabesques.
Published: Christies', London, June 1986,188-89.no.430.

- (64) Hemispherical box and cover Plates 74,75.
London, Victoria and Albert Museum
Inv.no. M719-1910
Signed *Muhammad ibn (al-Hajj) 'Ali ibn al-mu'allim Husain al-ra'is.*

Brass, engraved and inlaid with silver and black compound. D.15.5 cm, H.(with lid) 8.7 cm. Profile Type A, flat lid. Group B.

Motifs : Lid (fig.67). Central roundel, 4-part arrangement of split palmette stems, darts, fig.1a K1A, fig.52d variant, minute arabesques and "curl" ground.

Box. Signed on projecting rim in 2 areas, scrolling stem between. Arrangement similar to lid but, unusually, central rhomb divided by seven fleur de lys, this 7-part division accentuated by infill of rhomboid interstices : in six fig.44a variant, seventh with geometric hexagonal interlace (pl.75). (The reason for this sudden change in decorative infill, which breaks the symmetry of an otherwise rigidly ordered system, may be a reference to the cosmic system which relates the sun and moon and six planets (Mercury, Venus, Mars, Jupiter and Saturn) to the seventh "pseudo-planet" Djawzahr, the eclipse monster, see Hartner:1938.)

Published: Mayer:1959,66 under Muhammad b.'Ali b. Husain.

- (65) Hemispherical box and cover Plates 1,2,3,4.
London, Courtauld Institute
Inv.no.76 (Gambier-Parry 79)
Signed (1) *'amalun* (or *'amala*) *al-mu'allim Mahmud al-Kurdi yarju al-maghfirata min mawlahi* (2) AMELEIMALENMAMUD.

Brass, engraved and inlaid with silver and black compound. D.15.6 cm, H.7.4 cm. Profile Type A, flat lid. Group B.

Motifs : Lid (pl.2). Concentric rings, centred on concave-sided hexagon from which 3 lime-shaped medallions emerge. Tripartite divisions overall, border fig.14c A4B, cusped roundels, small roundels with 6-pointed star and fig.44a variant, all-over minute arabesque ground.

Box (pl.1). Signed on upper rim in two panels (pls 3,4), panels fig.16c F2 variant between. Arrangement as lid with 12-pointed concave-sided star at centre chequered by crossed parallel lines to form cruciform division. From alternate points emerge lime-shaped medallions, alternately chequered as central star. Narrow borders fig.14c A4B, walls as main lid band, cusped roundels and rhombs, small roundels fig.44a variant and 6-pointed star interlace, all-over minute arabesque ground.

Published : Robinson:1967,170-73,fig.91,no.204; Auld:(Forthcoming).

(66) Hemispherical box and lid

Plate 29.

London, British Museum

Inv.no.1895 5-21 3

Signed (1) *'amal^{un}* (or *'amala*) *al-mu'allim* (2) *Mahmud al-Kur* (sic) (3) *-di yar* (sic) (4) *-ju al-maghfir* (sic).

Brass, cast and spun, engraved and inlaid with silver and black compound. D.(box) 15 cm, D.(lid) 16 cm. Profile Type A, flat lid. Group B.

Motifs : Lid. Design varies to that of box and metal, and metal a different colour, but this is possibly due to overcleaning. Centres on circle, from which 4-part design emerges, areas of heavy "linear" arabesque laid over minute arabesque ground. "Linear" fig.62d variant, fig.69b E1 variant, cusped rhombs, guilloche knots fig.1a K1A, fig.2b K2B variant.

Box. Signed on upper rim with angular "key" pattern between. Arrangement centred on hexagon, from which develops 12-pointed interlaced star. From alternate points emerge guilloche knots fig.1a K1A and "linear" fleurs de lys. Areas of heavy "linear" arabesques laid over "curl" ground, remaining ground with minute arabesques. 4 successive bands of heavy arabesques alternating with geometric negative areas. On rim narrow border of fig.16c F2.

Published : Mayer:1959,57,no.IX; Pope:1930,184,241; Christie:1931,121,fig.24; Wiet:1932,(?)22 no.60,69,259 no.479; Zaki Hasan:1981,fig.565.

(67) Hemispherical box and cover

Plate 30.

London, British Museum

Inv.no.1895 5-21 2

Signed (lid) (1) *'amal^{un}* (or *'amala*) *a* (sic) (2) *-l-mu'allim* (3) *Mahmu* (sic) (4) *-d al-Kurd* (sic) (5) *-i yar* (sic) (6) *-ju*.

(box) (1) *'amal^{un}* (or *'amala*) *al-mu'allim* (2) *Mahmud al-Kur* (sic) (3) *-di yarju al-* (4) *maghfirat^a min mawlahi*.

Brass, cast and spun, engraved and inlaid with silver and black compound. D.(box) 14.8 cm, D.(lid) 15.6 cm. Profile Type A, slightly domed lid.

Motifs : Lid (fig.74). Concentric bands, centred on 6-pointed star ("Solomon's shield") in which elements of signature appear. From points, split palmette arabesques in heavy "linear" technique, narrow border 3-strand guilloche (fig.13a A2A variant), broad band of alternating 6 concave and 6 convex rhombs, concave filled with heavy arabesques. Fine arabesque ground throughout.

Box (fig.75). Signed on upper rim. Arrangement as that of lid, expanded so central area fills base, outer bands to fill walls. Border panels fig.14c A4B variant with between panels of heavy arabesque over "curl" ground. Border on projecting rim fig.16e F2B variant. As lid, fine arabesque ground throughout.

Published: Mayer:1959,57,no.X.

- (68) Hemispherical box and cover Plates 24,25,26,
27,28.
London, Victoria and Albert Museum
Inv.no.2290-1855
Signed (lid) *naqqash^{un}* (or *naqqasha*) *al-mu'allim Mahmud*
(box) (1) *naqqash^{un}* (or *naqqasha*) *al-mu'allim* (2) *Mahmud*
al-Kur (3) *-di yarju* (4) *al-maghfirat^a min mawlahi* (?).

Brass, engraved and inlaid with silver and black compound. D.15.5 cm, H.8 cm. Profile Type A, flat lid. Group B.

Motifs : Lid (pl.24). Tripartite arrangement centred on concave-sided dodecagon with central signature between parallel border in style of Mamluk blazon. From 3 points emerge guilloche knots fig.1a K1A, leading to rhombs (fig.1f). Between 3 cruciform medallions leading to large cruciform medallions surrounded by heavy "linear" arabesques in border. All-over minute arabesque ground, cross-hatching behind signature.

Box (pls 25-28). Signed on upper rim in 4 panels, panels of double fig.16c variant between. Arrangement as lid, expanded to allow outer border to cover walls.

Published : Lane-Poole:1886/1,203,fig.79; Casanova *Cuivres Arabes*, 1895,29; Wiet:1932,259,app.no.477; Mayer:1959,57 no.VIII (with full bibliography), Turner:1982,22,pl.16.

- (69) Hemispherical box and cover
Cividale del Friuli, Museo Archeologico Nazionale
Inv.no.4441
Signed (lid) (1) *'amal^{un}* (or *'amala*) *al-mu'allim Mahmu* (sic)
(2) *-d al-Kurdi yarju*
(box) (1) *'amal^{un}* (or *'amala*) *al-mu'allim Mahmud al-*
Kurdi (2) *yarju al-maghfirat^a min mawlahi*.

Brass, engraved and inlaid with silver and black compound. D.13.7 cm, H.8.2 cm. Profile Type A, flat lid. Group B.

Motifs : Lid. Arrangement centres on dodecagon from which develops scrolling arabesque to fill roundel. 6-part division of surrounding border into shield-shaped medallions with panels of "linear" arabesque between, two with signature arranged between parallel lines as Mamluk blazon, two with scrolling stem, two with debased K2D, K5B. Border fig.14c A4B variant. All-over minute arabesque ground.

Box. Arrangement similar to lid, medallion (fig.70a) and border expanded to allow signature panels to adorn walls. Border A4B and on projecting rim narrow border fig.16d F2 variant.

Published: Mayer:1959,57,no.XII (with full bibliography); Scerrato: 1966,140-1,fig.61.

- (70) Hemispherical box and cover
Paris, Musée du Louvre
Inv.no.OA 7525.

Plate 23.

Brass, engraved and inlaid with silver and black compound. D.(box) 14.1 cm, D.(lid) 14.6 cm, H.13 cm. Profile Type A, flat lid. Group B.

Motifs : Lid (fig.68). From central cruciform rosette, 4-part arrangement of split palmette ogees, narrow border of 6 panels of arabesque between "linear" knots, leading to band of 3 cusped lime-shaped medallions and 3 ogival-ended oblong medallions with panels of "linear" arabesques between, half sub-divided palmettes at border, fig.62e variant.

Box. From central 6-pointed star, interlaced dodecagon leads to arrangement of sub-divided split palmettes fig.62e variant, fig.62h variant to fill base. Walls similar to outer border of lid. Unpublished.

- (71) Hemispherical box and cover
Paris, Musée des Arts Décoratifs
Inv.no. Dp.Louvre 202.

Brass, engraved and inlaid with silver. D.17 cm, H.8.5 cm.

Motifs : Unseen.
Unpublished.

- (72) Hemispherical box and cover
Paris, Musée des Arts Décoratifs
Inv.no.20331.

Brass, engraved and inlaid with silver and black compound. D.(box) 14.9 cm, D.(lid) 15 cm, H.7.6 cm. Profile Type A, flat lid. Group A.

Motifs : Concentric bands, lid and base unseen, walls 2 roundels with European shields with diagonal stripes (compare Allan:1986,59 Badoer of Venice), 2 roundels with floral arabesques; panels between alternately fig.2d K2D and fig.4g K4A variant, and fig.6a variant. Border fig.16b FlA variant, on projecting rim fig.12a. Unpublished.

- (73) Hemispherical box and cover
Lyons, Musée des Beaux Arts
Inv.no.E 538-57.

Brass, engraved and originally inlaid with silver and black compound.
D.13.7 cm. Profile Type B, lid slightly domed at centre. Group A.

Motifs : Lid. Concentric bands, central roundel fig.44a variant, border fig.16b FlA variant, 3 small roundels with 6-petalled rosettes, wide band 3 large roundels fig.44a variant as centre, panels fig.2d K2D fig.4 K3C variant, "curl" ground.

Box as lid, expanded to allow outer border to fill walls.
Unpublished.

- (74) Hemispherical box cover
Previously Garnier Collection, present location unknown.

Brass, engraved and inlaid with silver. Dimensions and profile unknown. Group B.

Motifs : Lid only known. Centred on interlaced octagon, 4-part arrangement, 4 fleurs de lys fig.62d variant alternate with 4 lime-shaped medallions, fig.69c E2 variant with half-motifs at border, all-over minute arabesque ground; close to fig.66 in arrangement and details.

Published: Migeon:1903,pl.28 bottom left.

- (75) Hemispherical box cover
Previously Kelekian Collection, present location unknown.

Brass, inlaid with silver. Dimensions and profile unknown. Group B.

Motifs : Lid only. Centred on 8-pointed star from points of which emerge alternately 4 knots and cusped medallions and 4 fleur de lys leading to panels of "linear" arabesques with fig.62d variant. At border alternate half-palmettes and fleurs de lys. All-over minute arabesque ground. Aesthetic with heavy "linear" arabesques close to Musée du Louvre, inv.no.6009, cat.no.59 above.

Published: Migeon:1903,pl.28 bottom right.

- (76) Hemispherical box
Venice, Museo Correr
Inv.no.XI 1342.

Brass, cast and spun, engraved and originally inlaid with silver and probably black compound. Lid missing. D.12.7 cm, H.4.9 cm.
Profile Type A. Group B.

Motifs : All-over repeat of roundels with fig.44a variant, small roundels 6-petalled rosettes between, ground similarly fig.44a variant. Narrow border fig.12a A1.

Unpublished.

- (77) Hemispherical box and cover Plate 33.
Venice, Museo Correr
Inv.no.XII 35 or 36 (Register confused).

Brass, engraved and inlaid with silver and perhaps black compound.
D.14.3 cm. Profile Type A, flat lid, Group A.

Motifs : Concentric bands.

Lid. Central roundel as fig.7, borders fig.16a F1 variant,
band fig.2g K2G fig.4g K4A variant. Inside fish-whorl fig.56a.

Box. Central roundel fig.11, border fig.16a F1 variant,
walls fig.2f K2F and fig.4d K3D variant, rim fig.12a A1. "Curl"
ground. As lid, fish-whorl on interior base.
Unpublished.

- (78) Hemispherical box
Venice, Museo Correr
Inv.no.XI 1344.

Brass, engraved and originally inlaid with gold and silver. D.12.1
cm, H.4.5 cm. Lid missing. Profile Type B, Group B.

Motifs : Centre so badly worn arrangement is lost. Guilloche knots
fig.1a K1A and fig.62d variants, walls continue knots and twists
alternation, fig.6e. Rim with narrow border fig.16c F2 variant.
"Curl" ground. Fish-whorl on interior, fig.56a variant.
Unpublished.

- (79) Hemispherical box and cover
Florence, Museo Nazionale del Bargello
Inv.no.366C.

Brass, engraved and inlaid with silver and black compound. H.8
cm, D.14.9 cm. Profile Type A, flat lid. Group A.

Motifs : Arrangement as Museo Correr, inv.no.XI 35, cat.no.(77)
above. Fig.2a K2A variant, fig.16b F1A variant, fig.2b K2B variant,
fig.4 K4D K3D variant, Fig.1a K1A and b K1B, fig.11 variant. "Curl"
ground.
Unpublished.

- (80) Hemispherical box
Florence, Museo Nazionale del Bargello
Inv.no.368C.

Brass, engraved, inlaid with silver and black compound. H.7.0 cm,
D.13.9 cm. Profile Type B, lid lost. Group A.

Motifs : Concentric bands, central roundel with dart and shield
alternation (8-repeat round central 8-pointed star, fig.36a variant),
border fig.16b F1A variant, 4 small roundels fig.52i variant, walls
with broad band of 4 roundels fig.44a variant, panels between fig.2d
K2D and fig.4b K3B, 6-petalled rosettes. "Curl" ground.
Unpublished.

- (81) Hemispherical box
Florence, Museo Stibbert
Inv.no. 6122
"Signed by Mahmud al-Kurdi".

"Bronze", no details.

Published: (Reference) Mayer:1959,58,no.XIII.

- (82) Hemispherical box
Previously St. Louis, Missouri, City Art Museum (renamed St. Louis Art Museum), present location unknown
Inv.no.1336 M.
"Signed by Mahmud al-Kurdi"

"Bronze", no details.

Published: (Reference) Mayer:1959,57,no.XI.

- (83) Hemispherical box cover
Naples, Museo Capodimonte
Inv.no.112113/1143b.

Brass, engraved, inlaid with silver and black compound. Dimensions unknown.

Flat lid only. Group A.

Motifs : Lid (fig.8). Concentric bands, central medallion with 6 circles intersecting fig.57b variant (compare centre of silver made for Emir Saif al-Din Ylbay al-'Ala'i, Governor General of province of Safad from 1470 until his death, Djumada II AH 879/1474, Wiet:1932,117,pl.LI,no.4121), centre fig.52i variant, 6-petalled rosettes in "petal" divisions, small roundels fig.52i variant, panels fig.16a Fl variant, broad band figs.2d K2D, fig.4f K3F variant. "Curl" ground.

Published: Scerrato:1967,cat.no.29,fig.28 (with bibliography).
Grube:1974,fig.86.

- (84) Hemispherical box and cover
Naples, Museo di Capodimonte
Inv.no.112121.

Brass, engraved, probably originally inlaid with silver and black compound. D.13.1 cm, H.7.3 cm. Profile Type B, flat lid. Group A.

Motifs : Lid. Concentric bands, central roundel reworked and drilled. An inscription on roughly hatched ground in the central roundel is illegible and probably a later Western addition because letters are incorrectly formed. Band of 6 roundels fig.44a variant each drilled in centre; wide border double fig.16b FlA with 3 roundels, each reworked with illegible inscription, also drilled.

Box. Same arrangement as lid with single fig.16a FlA border, roundels not reworked. "Curl" ground.

Published : Scerrato:1967,cat.no.30,fig.29; Grube:1974,figs 88,89.

- (85) Hemispherical box and cover
Naples, Museo Capodimonte
Inv.no.781.

Brass, engraved, originally inlaid with gold and silver, now largely lost, and black compound. D.14 cm, H.7 cm. Profile Type B, flat lid. Group A.

Motifs : Lid. Concentric bands, central roundel fig.44a variant, border fig.16b FlA, border knots fig.2d K2D fig.4e K3E, border fig.16b FlA, small roundels fig.52i variant. "Curl" ground.

Box. Same arrangement as lid, walls filled with large roundels fig.44a variant, panels of knots K2D K3E. Scalloped fillet borders, "curl" ground.

Published: Scerrato:1967,cat.no.28,fig.27; Grube:1974,fig.87.

- (86) Hemispherical box and cover
Naples, Museo Capodimonte
Inv.no.780.

Brass, engraved and inlaid with silver and gold and black compound. D.14 cm, H.7 cm. Profile Type A, flat lid. Group A.

Motifs : Lid. Central medallion octagon interlace (fig.11 variant), border basket-weave interlace fig.9a.

Box. Central medallion unseen, border fig.16b FlA variant, walls band fig.9a. Rim fig.16c F2 variant.

Published: Scerrato:1967,cat.no.27,fig.26; Grube:1974,fig.85.

- (87) Hemispherical box and cover
Milan, Museo Poldi Pezzoli
Inv.no.770.

Brass, engraved and inlaid with silver and black compound. D.13.7 cm, H.6 cm. Profile Type A, flat lid. Group A.

Motifs : Lid. Concentric bands round central medallion with reworked European shield of Bembo family (Venice; see Coronelli :1694), traces of original floral motif visible. Roughened surface of shield probably indicates gold "spatial" inlay, especially in view of or/azur colours of Bembo arms. Narrow border fig.6a, narrow border 16b FlA variant with 4 small roundels fig.52b, border of 4 roundels, alternately fig.35b variant and fig.51a variant, panels between alternately fig.6a variant, fig.2g K2G fig.4h K4B variant, narrow border fig.16b FlA variant.

Box. Arrangement as lid using variants of same motifs, wide band of alternating fig.6a and K2, K4 on walls, alternate roundels with Bembo arms and 35a variant. On rim fig.12a A1.
Unpublished.

- (88) Hemispherical box and cover (later converted to teapot)
Berlin, Kustgewerbemuseum
Inv.no.05/104 a, b.

Brass, engraved and inlaid with silver. D.16.5 cm, H.11 cm.
Profile Type A, flat lid. Group B or possibly C.

Motifs : Lid. Central knob added later in middle of large roundel of "linear" inlay arabesque scrolls emanating from darts. Border of "linear" symmetrical geometric divisions on ground of fine arabesques. Although logically arranged, awkward and irregular spacing may indicate European work.

Box. Converted into small ewer by addition of spout, handle and foot. Central roundel hidden, walls as border of lid. Fine arabesques of individual motifs fill negative spaces between "linear" inlay fig.14c A4B variant, fig.22d variant. Rim fig.13b A2B variant.
Unpublished.

- (89) Hemispherical box
Berlin, Museum für Islamische Kunst
Inv.no.I.3611.

Brass, engrave and inlaid with gold, silver and black compound.
D.12.5 cm, H.5 cm. Profile Type A, lid lost. Group A.

Motifs : Concentric bands, central roundel fig.32 Appendix fig.T7 variant, walls with broad band of 4 roundels fig.44a variant, panels fig.2d K2D fig.4a K3A variant, narrow fig.16b FlA variant, rim fig.12a A1.

Published: Sarre:1906,no.97; Museum für Islamische Kunst:1971,no.343; 1976,no.160; 1979,no.343.

- (90) Hemispherical box
Frankfurt am Main, Museum für Kunsthandwerk
Inv.no.7489.

Brass, engraved, inlaid with gold, silver and black compound.
D.12.7 cm, H.6 cm. Profile Type A, lid lost. Group A.

Motifs : Concentric bands, base unworked except for engraved roundel of 8-pointed star surrounded by 8 trefoils. Walls with narrow border of trefoils arranged to form pendant "tassles", broad band of roundels with alternate reworked European shield (these are unidentified; perhaps Cavalli overlaid by Sanudo) with addition of Gothic "I", "S" and "D". Alternate roundels with rhomb and cruciform stems in cusped fillet border. Panels between lotus and split palmette reminiscent of fig.54a. Rim fig.12a A1.
Unpublished.

- (91) Hemispherical box and cover
Munich, Museum für Volkerkunde
Inv.no.L.433.

Brass, engraved and inlaid with silver and black compound.
Measurements unknown. Profile Type A, flat lid. Group A.

Motifs : Lid. Concentric bands, central medallion of dart and shield alternation (6-repeat, fig.38b variant), border fig.16b FlA variant small roundels fig.52i variant, broad band of alternating roundels, 2 fig.44a variant, 2 fig.36c, between alternating panels 2 fig.42a, 2 fig.9b, interstices fig.4i K5 variant.

Box. Arrangement as lid, outer border filling walls, border fig.15a AlB variant, rim fig.16c F2 variant, 6-petalled rosettes. "Curl" ground.
Unpublished.

- (92) Hemispherical box
Düsseldorf, Kunstmuseum
Inv.no.15404.

Brass, raised, engraved, once inlaid with silver and black compound.
D.14.5 cm, H.7 cm. Profile Type A, lid lost. Group A.

Motifs : Concentric bands, central medallion unseen but apparently dart and shield alternation (described by Dr Hauptmann von Gladiss); walls with alternating roundels, 2 fig.9b, 2 dart and shield alternation, panels alternately 2 fig.10a, 2 fig.42a variant.
Unpublished.

- 93) Hemispherical box and cover
New York, Metropolitan Museum of Art
Inv.no.23.67.5 a.b.

Brass, engraved, inlaid with silver and black compound. D.11.45 cm, H.7.6 cm. Profile Type B, flat lid. Group A.

Motifs : Lid. Central roundel dart and shield alternation (5-repeat, fig.36a variant), border fig.16b FlA variant, band alternating quatrelobes fig.44a variant, lobed panels fig.42a variant.

Box. Base unseen, walls with arrangement as outer border of lid. In interstices fig.4i K5 variant; on rim narrow border fig.16c F2 variant, fig.12a Al, 6-petalled rosettes.
Published: Martin:1902,pl.15 fig.6.

- (94) Hemispherical box and cover
New York, Metropolitan Museum of Art
Inv.no.91.1.550.

Brass, engraved, inlaid with silver. D.13.7 cm, H.7 cm. Profile Type A, flat lid. Group A.

Motifs : Lid. Overhangs base. Central roundel fig.10a from which 14 ogival panels emerge, filled alternately with fig.10a and hexagonal interlace (El-Said and Parman:1976,fig.50), guilloche knots K1A.

Box. Base unseen; walls 4 roundels fig.44a variant and panels knots fig.2d K2d and fig.4b K4B variant. Because of difference in design, lid and box possibly not a pair. Rim fig.16d variant.

Published: Dimand:1947,120; Grube:1974,fig.84.

(95) Hemispherical box and cover

New York, Metropolitan Museum of Art

Inv.no.66.1972 a,b.

Brass, engraved and inlaid with gold and silver. D.13.4 cm, H.(with lid) 8.6 cm. Profile Type A, slightly domed lid. Group B.

Motifs : Lid. Central roundel with fleur de lys-like frame to European shield of unidentified arms. Within border letters "T", "F", "Z" all in "linear" inlay. Narrow border of engraved arabesques, 4 fleurs de lys, broad band of alternate 4 lime-shaped medallions and ogival medallions with central 6-petalled rosette. Narrow border at rim.

Box. Base unseen, walls arranged as broad band of lid. On rim narrow angular fig.16c F2 variant. All-over minute arabesque ground.

Unpublished.

(96) Hemispherical box

New York, Metropolitan Museum of Art

Inv.no.91.1.549.

Brass, inlaid with silver and black compound. D.14.2 cm, H.7.5 cm. Profile Type A, lid lost. Group A.

Motifs : Concentric bands, base unseen. Walls with alternating roundels and oblong panels. Roundels Appendix fig.T7 TB4 variant repeated 8 times round central 8-pointed star; panels chain of linked circles, in interstices fig.4i K5 variant. Border 3-strand guilloche, fig.12b A2 variant, small roundels "whirling" 6-pointed stars; rim fig.16d variant.

Published : Grube:1974,fig.83.

(97) Hemispherical box and cover

Plates 36,37,38.

Edinburgh, Royal Scottish Museum

Inv.no.1870 27-3.

Brass, engraved and inlaid with silver, red copper and black compound. D.14.4 cm, H.12.0 cm. Profile Type A, flat lid. Group A.

Motifs : Lid (pl.36). Concentric bands, centred on roundel fig.44a variant, narrow border fig.16b FlA variant, 3 small roundels fig.52i variant. Broad band of 12 fig.2d K2D and fig.4e K3E variant, narrow border repeat with 6 small roundels fig.52i variant.

Box (pls 37,38). Concentric bands but different motifs and with copper inlay, so may not match lid. Central roundel 16 "shield" repeat (fig.32b), converging on central 8 trefoils. "Curl" ground. Narrow border fig.16b FlA variant, small roundels fig.52b. Walls 4 roundels, 2 with European shield (unidentified; possibly Altieri family of Venice, see Coronelli:1694), 2 fig.35a variant. Panels between 2 fig.2d K2D fig.4g K4A variant, 2 fig.6a variant. "Curl" ground.
Unpublished.

(98) Hemispherical bowl
London, British Museum
Inv.no.1878 12-30 692.

Brass, engraved, inlaid with silver, gold and black compound.
D.(lid) 12 cm, H.5.7 cm. Profile Type B, flat lid. Group B.

Motifs : Lid. Concentric bands, central medallion fig.44a variant, narrow border fig.16b FlA variant with small roundels fig.52f variant, main band repeated roundels fig.44a variant.

Box. Arrangement as lid, central roundel fig.44a variant, border fig.16b FlA variant, walls 10 large roundels fig.44a variant, small roundels with 4-petalled rosettes between.
Unpublished.

(99) Hemispherical box and cover
London, British Museum
Inv.no.1878 12-30 693.

Brass, engraved, originally inlaid with silver. D.13.7 cm, H.7 cm.
Profile Type B, flat lid. Group B.

Motifs : Lid. Concentric bands, central medallion with 6-circle intersection fig.57b variant in subdivisions fig.44a variant, narrow border fig.16b FlA variant with small roundels fig.52i variant, broad band of 12 roundels fig.44a variant.

Box. Arrangement as lid, broad band filling walls. Small roundels with 5-petalled rosettes.
Unpublished.

(100) Hemispherical box and cover
London, British Museum
Inv.no.1878 12-30 694.

Brass, engraved, inlaid with silver, gold and black compound.
Profile Type A, flat lid. Group A.

Motifs : Lid. Concentric bands, central medallion an interlaced circle of basket-weave with cruciform motif at centre, broad band of alternating 12 knots fig.2f K2F variant and fig.4 K3 variant. "Curl" ground, fish-whorl on interior (fig.56 variant).

Box. Arrangement as lid, central roundel interlace (El-Said and Parman:1976,fig.24 variant), border fig.12d AlA, walls with broad band of 12 alternating knots K2F K3 variant as lid. On rim fig.12a Al guilloche. Fish-whorl on interior, as lid. "Curl" ground. Unpublished.

(101) Hemispherical box and cover
London, British Museum
Inv.no.1878 12-30 695.

Brass, engraved, originally inlaid with silver and black compound. D.13.3 cm, H.7 cm. Profile Type A, flat lid. Group A.

Motifs : Lid. Concentric bands, central medallions fig.44a variant with 5-petalled rosettes, narrow border fig.16b FlA, broad band of 14 alternating knots fig.2 K2 variant fig.4 K3 variant.

Box. Arrangement as lid, central medallion with fig.44a surrounded by semicircles to form 8 "petals" filled with 5-petalled rosettes and lotus buds. Narrow border fig.16b FlA variant, small roundels fig.52i variant, wide band 4 roundels fig.44a variant, panels between fig.2 K2 variant, fig.4 K3 variant, small roundels between of 6-petalled rosettes. "Curl" ground. Unpublished.

(102) Hemispherical box and cover
London, British Museum
Inv.no.1878 12-30 696.

Brass, engraved and inlaid with silver. D.13.3 cm, H.6.7 cm. Profile Type A, flat lid. Group A.

Motifs : Lid. Concentric bands, central medallion fig.11 variant, border octagonal interlace forming 8-pointed stars (El-Said and Parman:1976,fig.24).

Box. Arrangement as lid. Central roundel hexagon interlace (Bourgoin:1973 fig.38 variant), border fig.16b FlA variant, on rim fig.16c F2 on hatched ground. Unpublished.

(103) Hemispherical box and cover
London, British Museum
Inv.no.1878 12-30 697.

Brass, cast, spun, engraved and inlaid with silver and black compound. D.13.3 cm, H.7 cm. Profile Type A, flat lid. Group A.

Motifs : Lid. Concentric bands, central roundel with hexagonal interlace, swastikas round 6-pointed star, border fig.16b FlA variant, small roundels with "whirling" 6-pointed stars. Broad band of 3 roundels as centre, panels with saltire cross and strapwork centred on 4-petalled rosette and lotus blossom, border as above.

Box. Arrangement as lid, central medallion with octagonal interlace with 8-pointed stars, half-motifs at border. Narrow border as lid, broad band of concave cusped roundels with hexagonal interlace forming swastikas (El-Said and Parman:1976,fig.50), cruciform motifs between with central swastika. Fish-whorl on interior, "curl" ground.

Published: Baer:1983,134,fig.112.

(104) Hemispherical box and cover
London, British Museum
Inv.no.1878 12-30 698.

Brass, cast and spun, engraved and inlaid with silver and black compound. D.14 cm, H.6 cm. Profile Type A, flat lid. Group A.

Motifs : Lid. Concentric bands, central roundel with European shield "bendy" (possibly Badoer, see Coronelli:1694, Allan:1986,59 fig.50, 7). Dart and shield alternation border (10-repeat, fig.36a variant), narrow border fig.16b FlA variant, 4 quatrelobes.

Box. Central roundel of strapwork incorporating 6-petalled "daisies", narrow border fig.16b FlA, quatrelobes, walls with 4 roundels, 2 with shield as lid, 2 with fig.35a variant, cusped fillet borders, panels between alternate fig.6a variant, knots fig.2f K2F variant fig.4g K4A variant, rim fig.12a A1.

Unpublished.

(105) Hemispherical box
London, British Museum
Inv.no.1878 12-30 699.

Brass, engraved and inlaid with silver. D.14 cm, H.6.7 cm. Profile Type A, lid lost. Group A.

Motifs : Concentric bands, large central medallion with 12-repeat Appendix fig.T7 TB variant, guilloche knots fig.1a K1A around central 12-pointed star, narrow borders fig.15a A1B, small roundels fig.59b, walls with 4 roundels as central roundel here 6-repeat, oblong medallions between fig.2d K2D fig.4g K4A fig.6c K5B, interstices fig.4i K5 variant, rim fig.16c F2 variant. "Curl" ground, 4-petalled rosettes.

Unpublished.

(106) Hemispherical box
London, British Museum
Inv.no.1878 12-30 700.

Brass, cast and turned, engraved and inlaid with silver, traces of gold and black compound. D.12.7 cm, H.5.7 cm. Profile Type A, lid lost. Group A.

Motifs : Concentric bands, central medallion knot with central rhomb, trefoils, dart and shield alternation (4-repeat fig.38a variant), border fig.12d A1A, broad band scrolling stems carrying lotus fig.51c variant, lower petals in gold, lotus buds with central point gold, rim angular guilloche fig.12a A1 variant. "Curl" ground. Interior with central fish-whorl fig.56a variant.
Unpublished.

(107) Hemispherical box
London, British Museum
Inv.no.1878 12-30 701.

Brass (or bronze, with brown patina), engraved and inlaid with silver and black compound. D.15.8 cm. H.7.6 cm. Profile Type A, lid lost. Probably Group A.

Motifs : All-over design of counter-change fleurs de lys, alternating between heavy linear inlaid arabesques and minute arabesque ground. Rim fig.16c F2 variant.
Unpublished.

(108) Hemispherical box
London, British Museum
Inv.no.1878 12-30 702.

Brass (or bronze, with brown patina), engraved and inlaid with silver and black compound. D.14.3 cm, H.7 cm. Profile Type A, lid lost. Group A.

Motifs : Concentric bands, central medallion with 12-pointed star leading to interlaced concave-sided dodecagon with guilloche knots fig.1a K1A, ending with ogival arcs at border, narrow border fig.16b F1A variant with 12 small quatrefoils of rhomboid knots, walls with alternate lobed roundels and oblong medallions, rhomboid knots, fig.44a variant, 8-pointed stars, ivy-leaf arabesques. Engraved arabesque ground.
Unpublished.

(109) Hemispherical box and cover
London, British Museum
Inv.no.1878 12-30 703.

Plate 73.

Brass, cast and spun, engraved and inlaid with silver, gold and black compound. D.(lid) 15.5 cm, D.(box) 15.7 cm, H.8.2 cm. Profile Type A, flat lid. Group B.

Motifs : Lid. All-over inlaid 4-part design of 4 cusped fleurs de lys (fig.69b E1 variant) in cruciform shape and alternating lime-shaped medallions over minute arabesque ground from central circle, with half-palmettes at rim.

Box. Central roundel expanded with 2 interlaced quatrelobes at centre, 4 cusped fleurs de lys forming cruciform design; broad band as lid on walls, each filled with minutely engraved arabesque. "Spatially" inlaid ivy and split palmette leaves. Rim Appendix fig.T3 TF2 variant.

Unpublished.

(110) Cover
London, British Museum
Inv.no.1878 12-30 704.

Brass, engraved and inlaid with silver and black compound. D.11.1 cm. Flat lid. Group B.

Motif : All-over dodecagon interlace fig.10b repeat.
Unpublished.

(111) Hemispherical box
London, British Museum
Inv.no.1970 4-2 1.

Brass, engraved with traces of silver inlay and black compound. D.13.4 cm. Profile Type A, lid lost. Group A.

Motifs : Concentric bands, central roundel fig.35a variant, narrow border of trefoil counter-change, main band on walls with roundels with cusped fillet border round European shield (unidentified, with lightly engraved castle), panels between fig.2c K2C variant fig.4g K4A variant, fig.6a variant, narrow border fig.16b FlA variant, quatrelobes fig.52b. Rim fig.12a A1. "Curl" ground.
Unpublished.

(112) Hemispherical box and cover
London, British Museum
Inv.no.1866 12-29 69.

Brass, engraved and inlaid with silver and black compound. D.14 cm.
Profile Type A, flat lid. Group A.

Motifs : Lid. Concentric bands, at centre roundel with European shield ("bendy", possibly Badoer, see BM 1878 12-30 698 cat.no.104 above) with border of dart and shield alternation (8-repeat, fig.36a variant), narrow border fig.16b FlA variant and 4 quatrelobes fig.52b.

Box. Arrangement as lid, central roundel (worn) of interlace with 4 6-pointed stars, narrow border fig.16c FlA as lid. Walls 2 roundels with blank shields, 2 roundels fig.35a variant.
Unpublished.

(113) Hemispherical box
London, Victoria and Albert Museum
Inv.no.1522-1888.

Brass, engraved and inlaid with silver and black compound. D.18.7 cm, H.8.6 cm. Profile Type A, lid lost. Group A.

Motifs : Concentric bands, central roundels divided by "whirling" 8-petalled rosettes. Narrow border fig.15a AlB variant with 8 quatrelobes fig.52i variant. Main band on walls of roundels with central rhomb with 4 trefoils, "spatial" inlay, on rim fig.16c F2 variant, "curl" ground.
Unpublished.

(114) Hemispherical box and cover
British, Victoria and Albert Museum
Inv.no.373-373a-1897.

Brass, engraved and inlaid with silver. D.14.6 cm, H.7.7 cm.
Profile Type A, flat lid. Group A.

Motifs : Lid. Concentric bands, central medallion of interlaced straps, narrow fig.16c FlA variant, wide band of alternate knots fig.2 K2 variant fig.4 K3 variant on "curl" ground, narrow border fig.16c F2 variant.

Box. Arrangement as lid. On interior of both a fish-whorl, fig.56 variant. Rim fig.12a Al.
Unpublished.

(115) Cover

London, Victoria and Albert Museum
Inv.no.375-1897.

Brass, engraved and inlaid with silver. Lid only. D.11.1 cm, H.2.4 cm.

Motifs : Unseen, catalogue reads "cover of a box of brass engraved with interlacing arabesque foliage originally damascened in silver of which traces remain".

Unpublished.

(116) Cover

London, Victoria and Albert Museum
Inv.no.376-1897.

Brass, engraved and inlaid with silver. Lid only. D.5.7 cm, H.1.6 cm.

Motifs : Unseen, catalogue reads "cover of a box of brass engraved with interlacing arabesque foliage originally damascened in silver, of which traces remain".

Unpublished.

(117) Hemispherical box

London, Victoria and Albert Museum
Inv.no.M 13-1946.

Brass, engraved, originally inlaid with silver. D.13.3 cm, H.5.7 cm.

Motifs : Unseen, catalogue reads "Bowl, brass formerly inlaid with silver. Veneto-Saracenic, middle of 16th century. Hemispherical with an all-over design of arabesques in linked roundels. ? Part of hand-warmer". Probably similar in design to Venice, Museo Correr inv.no.XI 1342 cat.no. (75) above.

Unpublished.

(118) Hemispherical box

London, Victoria and Albert Museum
Inv.no.M 19-1946.

Brass, engraved and originally inlaid with silver, later gilded. D.12.1 cm, H.5.7 cm. Profile Type A, lid lost. Group A.

Motifs : Concentric bands, central roundel of scrolling stems from central cruciform flower forming 8-part cusped roundel at rim bearing fleurs de lys, narrow border fig.16c F2 variant, roundels with 6-petalled rosettes, wide band fig.16b FlA repeated.

Unpublished.

- (119) Hemispherical box and cover
London, Victoria and Albert Museum
Inv.no.841-1891.

Brass, engraved and inlaid with silver and black compound. D.14.6 cm, H.6 cm. Profile Type A, flat lid. Group A.

Motifs : Lid. Concentric bands, central medallion with 12-pointed star surrounded by strapwork forming interlaced "sunburst" to scalloped border, wide band alternating fig.2 K2 and fig.4 K3, narrow border fig.16b FlA variant with 6 small roundels with 8-petalled rosettes.

Box. Arrangement as lid, central medallion unseen, narrow border fig.16b FlA, walls 4 large roundels, 2 with blank European shields, 2 fig.44a variant, rim fig.12a A1.
Unpublished.

- (120) Hemispherical box and cover
London, Victoria and Albert Museum
Inv.no.2289-1855.

Plate 69.

Brass, engraved, originally inlaid with silver and perhaps gold. D.14.6 cm, H.7 cm. Profile Type A, flat lid. Type B.

Motifs : Lid. From central point (drilled) 12 curved divisions, alternately filled with (1) star interlace fig.10a variant, and (2) scrolling arabesques round central dart-motif (compare fig.40). In star interlace divisions, a roundel alternately with fig.52g variant and dart-shaped arabesque.

Box. As lid, divided by curvilinear inlaid wires into 12 oblique stripes, filled alternately as lid (pl.69). Here roundels are more complex, being (1) with central fig.52f variant and surrounded by stems bearing alternately 3 lotus blossoms and 3 6-petalled "daisies" (perhaps also lotus seen from above, see Chapter 3, Part 2, Section 6), and (2) a central lotus blossom in a split palmette dart-shaped surround, with lotus blossoms and "daisies" as before. Rim fig.16c F2 variant.
Unpublished.

- (121) Hemispherical box and cover
London, Victoria and Albert Museum
Inv.no.1520-1888.

Brass, engraved and inlaid with silver. D.15.2 cm, H.7.6 cm.

Motifs : Unseen, catalogue reads "Bowl with cover. Brass engraved with floral and strapwork ornament partly overlaid with silver. Probably made at Venice".
Unpublished.

- (122) Hemispherical box
London, Victoria and Albert Museum
Inv.no.1521-1888.

Brass, engraved and inlaid with silver. D.14 cm, H.7 cm.

Motifs : Unseen, catalogue reads "Bowl. Brass engraved with strapwork ornament, partly inlaid with silver. Probably made at Venice".
Unpublished.

- (123) Hemispherical box and cover Plate 72.
London, Courtauld Institute
Inv.no.199 (possibly Gambier-Parry 72).

Brass, engraved and inlaid with silver and black compound. D.(lid)
14.6 cm, H.7 cm. Profile Type A, flat lid (with central knop).
Group B.

Motifs : Lid (fig.21a). Concentric bands, central roundel 3-part repeated border motif (compare dome of Masjid-i Shah, Isfahan, Burckhardt:1976, pl.157; outer border design of double frontispiece with Surat al-Waqia of two-part Qur'an, donated by Sultan al-Malik al-Ashraf Abu'l Nasir Barsbay 828/1425, Cairo National Library 98 vol.1, folios 1b-2a, Atil:1982,42-3,no.7). Narrow borders fig.13b A2B variant, between border as central medallion with crescent links (compare frontispiece to Part 12 of Qur'an, Chester Beatty Library, Dublin, Ms.1465 (folios 1b-2a) 1st quarter of 14th century. Atil:1982,32-3,no.2).

Box. As lid, centred on small 6-pointed star formed by intersecting stems; rim fig.12a Al.
Published: Robinson:1967,173.

- (124) Hemispherical box and cover Plates 67,68.
London, Courtauld Institute
Inv.no.95 (Gambier-Parry 85).

Brass, engraved and inlaid with silver and black compound. D.(lid)
15.6 cm, H.7.6 cm. Profile Type A, flat lid. Group B.

Motifs : Lid. All-over repeat fig.10b.

Box. Base as lid, walls divided into 12 oblong panels filled with fig.10a, central band fig.13b A2B, rim narrow fig.16c F2 between plain fillets twisted to form small roundels.
Unpublished.

(125) Hemispherical box and cover
London, Courtauld Institute
Inv.no.86 (Gambier-Parry 67).

Plate 10.

Brass, engraved and inlaid with silver and black compound. D.12.5 cm, H.5.5 cm. Profile Type B, flat lid (with slight overhang). Group A.

Motifs : Lid. Concentric bands, central medallion fig.44a variant, narrow border fig.16b FlA variant, broad band of FlA repeated to form chain, narrow FlA with 4 small roundels fig.52i variant.

Box. Central medallion with dart and shield alternation (6-repeat, fig.38b with 5-petalled rosettes), narrow border FlA, walls broad band of FlA 4-repeat to form double chain, 4 large roundels. 2 blank European shields, 2 fig.44a variant, small roundels 6-petalled rosettes.

Unpublished.

(126) Hemispherical box
London, Courtauld Institute
Inv.no.45 (Gambier-Parry 69)

Brass, engraved and inlaid with silver and black compound. D.13.9 cm, H.7 cm. Profile Type A, lid lost. Group A.

Motifs : Concentric bands, central medallion with dart and shield alternation (10-repeat fig.36a variant) round 10-pointed star, narrow border fig.15a AlB variant, walls with repeated panels fig.29, guilloche fig.1a KlA, with between 6 small cartouches, 5 with *al-'ala'*, 1 with *al-'ala'* then *lam mim alif* (compare Wiet:1932,162 no.462,ppl.LXXVI). Rim FlB variant, "curl" ground.

Unpublished.

(127) Hemispherical box
Present location unknown
Martin:1902, pl.15 fig.4.

Details unknown, probably brass inlaid with silver and black compound. Profile Type B, lid lost. Group A.

Motifs : Base unseen. Walls with large roundel of European shield with arms (possibly Sanudo, see Coronelli:1694) between panels of knots fig.2d K2D and fig.4 K4A variant, and fig.6a interlace; rim fig.12 Al.

Published : Martin,1902, pl.15,fig.4.

- (128) Hemispherical box and lid
Bologna, Museo Civico Medievale
Inv.no.2104.

Brass, engraved, originally inlaid with gold and silver. D.13.3 cm, H.(with lid) 5.5 cm, H.(without lid) 5.0 cm. Profile Type B, flat lid. Group A.

Motifs : Lid. Concentric bands, central roundel with dart and shield alternation (4-repeat, fig.38a), narrow border fig.16a Fl variant, 4 small roundels fig.52i, broad band of alternating knots fig.2d K2D, fig.4b K3B variant. "Curl" ground.

Box. Arrangement as lid, dart and shield alternation (8-repeat, fig.36a variant) round central 8-pointed star; narrow border fig.16a Fl variant, small roundels as lid fig.52i, broad band with 4 large roundels fig.44a variant, between panels of knots fig.2d K2D and fig.4f K3F variant with central cross as Appendix fig.T11g, narrow band Fl, roundels as lid, rim fig.12 Al.
Unpublished.

- (129) Hemispherical box and cover
Bologna, Museo Civico Mediaevale
Inv.no. not known.

Brass, engraved and inlaid with silver and black compound. Dimensions unknown because box unseen. Profile Type B, flat lid. Group A.

Motifs : Lid. Concentric bands, large central medallion filled with dart and shield alternation (8-repeat fig.36a variant) round central 8-pointed star. Narrow border fig.16b FlA variant, 4 small roundels with lotus-derived motif not seen elsewhere on objects in this catalogue.

Box. Arrangement as lid, central roundel fig.44a variant, narrow border fig.16b FlA with 4 small roundels fig.52b surrounded by border of dart and shield alternation fig.36a variant, narrow border fig.16d variant, small roundels with quatrelobes, broad band of large roundels with coarse fig.44a variant with panels between of alternating knots fig.2g K2G variant, fig.4g K4A variant, and fig.6a variant. "Curl" ground, rim fig.12 Al.
Unpublished.

- (130) Hemispherical box
Bologna, Museo Civico Mediaevale
Inv.no.2101.

Bronze, engraved, originally inlaid with gold and silver (largely lost) and black compound (damaged). D.13.4 cm, H.5 cm. Profile Type A, no lid. Probably Group B.

Motifs : Concentric bands, central medallion of hexagonal interlace, narrow borders fig.16d variant, walls with alternating roundels fig.1e and oblong medallions fig.1d, both with central guilloche KlA. Rim angular fig.17d variant. Fish-whorl on interior, fig.56 variant.
Unpublished.

- (131) Hemispherical box and cover
Jerusalem, L.A. Mayer Memorial Institute for Islamic Art
Inv.no.M.213-73.

Brass, engraved and inlaid with silver and black compound. D.12.7 cm, H.(with lid) 5 cm. Profile Type A, flat lid. Group A.

Motifs : Lid. Central medallion of geometric interlace from central 6-pointed star, guilloche knots Kl and Appendix fig.T7 TB6 variant. On interior fish-whorl on arabesque ground.
Box. As lid from 6-pointed star. On rim fig.2c F2 variant. As lid, fish-whorl on interior.
Unpublished.

- (132) Hemispherical box
Jerusalem, L.A.Mayer Memorial Institute for Islamic Art
Inv.no.205 72.

Brass, inlaid with silver, gold and black compound. D.14 cm, H.5 cm. Profile Type B, no lid. Group A.

Motifs : Concentric bands from large central medallion of dart and shield alternation (8-repeat fig.36a variant), narrow band fig.16a F1 variant with 4 small roundels fig.44a variant, walls with 4 large roundels fig.44a between panels alternating knots fig.2d K2D, fig.4c K3C variant, cusped fillet border, "curl" ground.
Published: Christies', London, October 1972 no.78, pl.14a and b.

- (133) Hemispherical box and cover
Dublin, National Museum of Ireland
Inv.no.519-1887.

Brass, engraved and inlaid with gold and silver. Dimensions unknown. Profile Type A, domed lid. Group B.

Motifs : Lid. Unseen but from photograph apparently with "linear" cusped medallions of "spatially" inlaid split palmettes dividing surface from centre, all-over minute arabesque ground.

Box. As lid. Narrow border panels fig.13b A2B and fig.16b FlA variant, with small roundels 4-petalled rosettes. Walls with alternating "linear" cusped cruciform motifs and concave-sided medallions from which scrolling silver-inlaid arabesques alter visual emphasis from light, with each "linear" motif filled with fine individually engraved arabesques, to heavy. Unpublished. On inside lid label with "Taken in the capture of the Sinata (?) of Abd al-Kabir".

(134) Hemispherical box

Dublin, National Museum of Ireland

Inv.no.220-1899

Signed on rim (unread) beginning *mimma 'amalun bi-rasim ...*

Brass, inlaid with silver. Dimensions unknown. Profile Type A, lid lost. Group B.

Motifs : Base invisible in photograph. Walls divided into vertical panels by guilloche 2-strand twist (fig.12a A1 variant), individual strands separating to form arched terminals to panels. Each panel filled with "linear" interlaced motif, fig.9a, fig.11 variants, and lotus fig.52f variant. Rim fig.12d A1A with signature as yet unread. (For beginning compare Wiet:1932, who listed 72 objects so-inscribed, dating from 689-693/1290-1293 (Candlestick neck, no.4463, pl.XXIV for Zain al-Din Kitbugha) to the mid-11th/17th century (Basin, App.no.493, with name of Ramadhan ibn al-Buqsumati). Of these, Wiet dated 12 to 15th century, 30 to last days of Mamluks, i.e. before 1517, and majority of remainder to 14th century.) "Curl" ground. Unpublished.

(135) Hemispherical box and cover

Private Collection

Aron Collection no.14.

Brass, engraved and inlaid with silver and black compound. D.15.2 cm, H.7.4 cm. Profile Type A, flat lid. Group A.

Motifs : Lid. Concentric bands, central medallion with knot fig.2 variant with 8 terminals, narrow band fig.16a Fl variant, band alternating knots fig.2b K2B variant, fig.4g K4A variant, border fig.16a Fl variant. "Curl" ground, fish-whorl inside lid fig.56b.

Box. Arrangement as lid, central medallion with expanded knot interlace, central 6-pointed star with around 6 guilloche knots K1, developing into alternating K1 and 8-pointed stars, at border K4A variant. Narrow border fig.16a Fl, walls alternating knots fig.2e K2E variant, fig.4d K3D variant, border Fl variant, on rim fig.12 A1. Fish-whorl inside bowl fig.56b, "curl" ground. Published: Allan:1986, 96-9, no.14.

(136) Hemispherical box
Private Collection
Aron Collection no.15.

Brass, cast, engraved and inlaid with silver and black compound.
D.16.2 cm, H.7.2 cm. Profile Type B, no lid. Group A.

Motifs : Concentric bands, central medallion with dart and shield alternation (9-repeat fig.39a variant) round central 9-pointed star. Narrow border fig.16a F1 variant with quatrelobes fig.52i variant. Walls with alternating roundels, dart and shield alternation (3-repeat, fig.36c), one with European shield (Dolfin family, Allan:1986,98), and oblong medallions of dart and shield alternation fig.42a variant, knots fig.2d K2D fig.4b K3B variant fig.6c K5B variant, narrow border F1 variant. "Curl" ground. Inside a central whorl surrounded by dot-and-circle band, then alternating rosettes and triangles of 7 dot-and-circle motifs.
Published: Allan:1986,98-99,no.15.

(137) Hemispherical box
Private Collection
Aron Collection no.16.

Brass, cast, engraved and inlaid with silver and black compound.
D.14.2 cm, H.6.4 cm to 7 cm. Profile Type A, no lid. Group A.

Motifs : Concentric bands, central medallion interlaced from repeated Appendix fig.TB8 variant with dart chain to central 10-petalled rosette. Narrow border fig.15a AlB, small roundels fig.59b, walls alternating roundels dart and shield alternation (3-repeat fig.36c), panels dart and shield alternation fig.42a variant, small 6-petalled rosettes between, interstices fig.55e variant, narrow border AlB, on rim fig.16d variant.
Published: Allan:1986,100-1,no.16.

(138) Hemispherical box and cover
Present location unknown
Christies', London 24.11.1987, Lot no.116.

Brass, engraved and inlaid with silver and black compound. D.14.5 cm. Profile Type A, flat lid. Group A.

Motifs : Lid. Concentric bands, central medallion of dart and shield alternation (8-repeat fig.36a variant) round central 6-petalled rosette, narrow border fig.15A AlB small roundels 59b, wide band with 4 alternating roundels of dart and shield alternation (3-repeat fig.36c) and 4 oblong panels, 2 dart and shield alternation fig.42a variant, 2 knots fig.2d K2D, fig.4g K4A, fig.6c K5B variants, interstices fig.55e variant.

Box. Arrangement as lid, central roundel unseen, walls as broad band of lid, rim fig.16d variant. "Curl" ground.
Published: Christies', London,1987,53 no.116.

(139) Hemispherical box and cover

Present location unknown,
Sotheby's London, April 1989, Lot no.93.

Brass, engraved. The catalogue does not specify either silver or black compound inlay. D.14.3 cm. Profile Type A, flat lid, Group B.

Motifs : Lid. Concentric bands, cusped arcs forming 8-part flower "petals" round central concave-sided octagon, in each division engraved dart-shaped motif, narrow border of half-palmettes and fleurs de lys, band of fleurs de lys arranged in cruciform clusters with cusped lime-shaped medallion between, narrow border as above.

Box. Base unseen, walls arranged as broad and narrow bands of lid. On rim narrow panels of fig.16c and fig.16d variants interrupted by roundels with vertical stripe, flanked by trefoils. "Curl" ground. Elements of this box and cover do not occur elsewhere among the examples collected in the present catalogue.

Published: Sotheby's, London, April 1989, 40-41, no.94.

(140) Hemispherical box and cover

Copenhagen, David Collection
Inv.no. D.22/1986 (previously Museum of Decorative Arts,
inv.no.A.110/1920).

Brass, engraved and inlaid with silver and black compound. D.17 cm, H.8 cm. Profile Type A, lid lost. Group B.

Motifs : All-over counter-change fleurs de lys (fig.72b, alternately inlaid with "linear" stems fig.15a A1B variant and small scrolling arabesques fig.13b A2B variant. Rim angular guilloche fig.12a A1. Unpublished.

(141) Hemispherical box and cover

Copenhagen, David Collection
Inv.no.24/1970.

Brass, engraved and inlaid with silver and black compound. D.13 cm, H.6 cm. Profile Type A, flat lid. Group B.

Motifs : Lid (fig.3) large medallion of interlocking hexagons round central 6-pointed star, guilloche knots fig.1a K1A, fig.4i K5, figure-of-eight restraints, "curl" ground.

Box (frontispiece). Central roundel with hexagonal "Y" interlace (fig.9c) with 8 guilloche K1A around contained within split palmette stems that bisect and rejoin to form repeated lime-shaped motifs. "Curl" ground.

Unpublished.

(142) Hemispherical box

Present location unknown

Colnaghi Exhibition 1981 Objects for a Wunderkammer, no.33a.

"Bronze, gilt", engraved. D.16.2 cm. Mounted on foot, profile Type A, no lid. Group B.

Motifs : Base invisible under foot, walls divided by "linear" inlay into three horizontal registers and vertically into chequer-board effect filled alternately with "linear" inlaid circle. Fine arabesque ground throughout. Narrow borders fig.16b and fig.16c.

Published: Colnaghi:1981,56,no.33a.

(143) Hemispherical box

Present location unknown

Colnaghi Exhibition 1981 Objects for a Wunderkammer, no.33b.

"Bronze, gilt", engraved. D.15 cm, H.12.2 cm. Mounted on foot, profile Type A, no lid. Group B.

Motifs : Base invisible under foot, lower walls subdivided into lozenge sections by "linear" inlay which connect by way of narrow border fig.13b A2B variant to walls with alternating "linear" cusped rhombs with inlaid split palmette motif, and concave-sided rhombs. Fine arabesque ground, rim Appendix fig.T3 TF2a variant.

Published: Colnaghi:1981,56, no.33a.

(144) Hemispherical box and cover

Hamburg, Museum für Kunst und Gewerbe

Inv.no.1882.225.

Brass, engraved and inlaid with silver and black compound. Dimensions unknown. Profile Type A, flat lid. Group A.

Motifs : Lid. Concentric bands, central medallion of knot fig.2c K2C, narrow border fig.16b FlA variant, band of alternating fig.22g K2G fig.4d K3D variant, small K4A between, narrow border FlA variant. "Curl" ground.

Box. Base unseen, narrow border FlA variant, walls with alternating fig.2D K2D and fig.4e K3E variant with central guilloche fig.1 L1A, narrow border FlA, on rim fig.12a A1. "Curl" ground. Unpublished.

(145) Cylindrical box and cover

Plate 76.

London, Courtauld Institute
Inv.no.81 (Gambier-Parry 99).

Brass, engraved and inlaid with silver and black compound. D.10.8 cm, H.4.6 cm. Group B.

Motifs : Lid. 3-part design, split palmette motifs fig.69e E4 forming triangle developing outward to border, all-over arabesque ground.

Box. Base undecorated, walls fig.69e E4 variant with alternately reversed with heavy scrolling "linear" arabesque between, engraved all-over arabesque ground.

Published: Robinson:1967,173.

(146) Cylindrical box and cover

Plates 39,40.

London, Victoria and Albert Museum
Inv.no.915-1884.

Brass, engraved and inlaid with silver and black compound. D.(base) 12.3 cm, D.(lid) 13.4 cm, H.(without lid) 6 cm. Probably Group A.

Motifs : Lid (pl.39,fig.53). Overhangs base. Central medallion guilloche fig.1a K1A fig.4i K5 variant, narrow border fig.16c F2, 6-petalled rosettes, broad band with 12 lotus blossoms alternately reversed, narrow border of 6 panels alternately F2 and fig.16b F1A variant with 6-petalled rosettes between. Fish-whorl inside on plaque with fine arabesque ground (pl.40).

Box. Walls slope in at acute angle to undecorated base, walls with 4 roundels and panels, roundels alternately lotus blossom fig.51c and "Solomon's Seal" hexagon, panels alternately lotus and peony blossoms fig.51d and knots fig.6d.

Unpublished.

(147) Cylindrical box and cover (unmatching)

London, Victoria and Albert Museum
Inv.no.44-1905.

Brass, engraved and inlaid with silver and black compound. D.(lid) 12 cm, D.(base) 11.4 cm, H.(lid) 2.7 cm, H.(base) 3.8 cm. When assembled lid almost obscures unmatching base. Group B.

Motifs : Lid. 4-part design centred on 8-pointed star from which alternate fleurs de lys and knots fig.69f E5 variant lead to alternate lime-shaped medallions and knots fig.69f E5. At border "linear" half-palmettes, all-over fine arabesque ground. Walls alternating "linear" cusped rhombs and ogival panels filled with fine arabesques and areas heavy "linear" scrolling split-palmette arabesque.

Box. Base undecorated, walls 4 cruciform panels with between ogival panels, all-over minute arabesque ground, narrow border with small panels above cruciform divisions of main band of double fig.16c variant in wire.

Unpublished.

- (148) Cylindrical box and cover (unmatching) Plates 34,35.
Edinburgh, Royal Scottish Museums
Inv.no.1880 13-3,3a.

Brass, engraved and inlaid with silver and black compound. D.(lid) 11.7 cm, D.(base) 11.9 cm, H.(with lid) 4.7 cm, H.(without lid) 4.3 cm. Lid Group A, box Group B.

Motifs : Lid. Concentric bands, central medallion with hexagonal basket-weave fig.10a variant, narrow border fig.15a AlB variant with 4 small quatrelobes, broad band with 4 alternating quatrelobes fig.10a and lobed panels 2 knots fig.2d K2D fig.4e K3E variant fig.6c K5B, 2 dart and shield alternation fig.42a variant, interstices fig.55e variant.

Box. Base arranged from central 8-pointed star, arcs intersecting to form flower "petals" developing outwards to 8 ogival medallions, each section filled with fine arabesque; walls similarly with ogival medallions, panels between with small whorl above and below. All-over arabesque ground, individually arranged to fill motifs.

Unpublished.

- (149) Cylindrical box and cover Plate 50.
Frankfurt-am-Main, Museum für Kunsthandwerk
Inv.no.5228.

Brass, engraved, inlaid with silver. D.12.3 cm, H.6.8 cm. Group B.

Motifs : Lid. Centrally drilled. From cusped rhomb 4-part design, 4 alternating lime-shaped medallions and 4 heavy "linear" knots fig.69e E4 variant, "linear" half-fleurs de lys at border. All-over fine arabesque ground. Walls alternating cusped rhombs and ogival panels with heavy "linear" arabesques between, all-over fine arabesque ground.

Box. Base unseen. Walls as lid.

Unpublished.

- (150) Cylindrical box and cover
Copenhagen, David Collection
Inv.no.27/1970.

Brass, engraved and inlaid with silver and black compound. D.10.5 cm, H.5.5 cm. Group B.

Motifs : Lid. From central 8-pointed star, design developing outwards with 8 fleurs de lys, 4 "linear", 4 fig.62h, then 4 lime-shaped medallions with 4 shield-shaped medallions between. At border "linear" half-fleurs de lys. All-over arabesque ground. Walls with alternating "linear" lime-shaped medallions and cusped fleurs de lys on arabesque ground.

Box. Base unseen, walls exactly matching those of lid.

Unpublished.

(151) Cylindrical box and cover
Paris, Musée des Arts Décoratifs
Inv.no.20331.

Brass, inlaid with silver and black compound. D.14.9 cm, H.7.6 cm.
Group B.

Motifs : Lid (fig.31). From central 12-pointed star formed by 2 intersecting concave-sided hexagons 12 divisions to border, across which 2 plain fillet bands divide each panel into 3 sections. Each section filled with individual arabesque, central dodecagon 8-pointed star. Walls of lozenges with arabesque infill.

Box. Base unseen, walls alternating and interlocking lime-shaped medallions and cusped rhombs, each subsection with individual arabesque motif.

Published: Melikian-Chirvani:1974/2,120 figs 18,19.

(152) Cylindrical box and cover
Paris, Musée des Arts Décoratifs
Inv.no. Dp.Cluny 180 (14555 5125).

Brass, inlaid with silver. D.13.2 cm, H.6.5 cm.

Motifs : Unseen, catalogue reads "decoration of geometric interlace and arabesques".

Unpublished.

(153) Cylindrical cover
Present location unknown
Martin:1902 pl.15 fig.1.

Brass, engraved and inlaid with silver and black compound.
Dimensions unknown. Group B.

Motifs : From central concave-sided octagon, alternate points with ogival medallions and areas of heavy "linear" arabesques based on Appendix fig.T7 TB4 variant. Ground of all-over fine arabesques. Walls of similarly cusped panels alternating with heavy inlaid arabesques.

Published: Martin:1902,pl.15,fig.1.

(154) Cylindrical box
Florence, Museo Stibbert
Inv.no.6121
"Signed by Mahmud al-Kurdi".

Bronze, no details.

Published: (Reference) Mayer:1959,58,no.XIV.

(155) Bowl

London, Victoria and Albert Museum
Inv.no. 1686-1889.

Brass, engraved and inlaid with silver and black compound. D.31.7 cm, H.13.9 cm. Group A.

Motifs : Concentric bands, base with central roundel filled with fig.44a, from which 12 intersecting circles form flower "petals" (fig.57a variant), each section with arabesque infills, narrow border fig.16c F2 variant, small roundels fig.52b, wide band scalloped filled with large-scale scrolling palmettes. Walls, narrow F2 variant, wide band of large roundels alternately with blank European shield, lotus blossom fig.50b and fig.34b/35a, between alternating panels fig.6a and knots fig.2d K2D fig.4g K4A. Rim fig.12a A1, "curl" ground.

Published: Melikian-Chirvani:1974/2,120-21,pls X-XI,figs 21-23.

(156) Box and cover

London, Victoria and Albert Museum
Inv.no.918-1884.

Brass, engraved, inlaid with silver and black compound ("spatial" inlay lost). D.24.2 cm, H.10.1 cm. Profile unlike any other in present catalogue; lid flat with concave sloping shoulders (compare box, Metropolitan Museum of Art, New York inv.no.91.1.538 made for Muhammad ibn 'Ali al-Hamawi, Atil:1982,104,no.36) leading to perpendicular walls; box with bulbous lower body, flat base.

Motifs : Lid. From central knop small central medallion leads to broad band of dart and shield alternation (6-repeat fig.38b variant) with guilloche fig.1a K1A and "spatially" inlaid split palmettes. On shoulder stem Appendix fig.T5 TG4A variant, walls of alternating cusped rhombs, panels with central K1A and heavy inlaid arabesques.

Box. Base unseen, walls with broad border large-scale TG4A, concave border K1A in arched trellis, narrow border fig.13b A2B variant. All-over arabesque ground.

Unpublished.

(157) Hemispherical bowl

Naples, Museo Duca di Martina
Inv.no.1041.

Brass, engraved and inlaid with silver and black compound. D.22 cm, H.8 cm. Group B.

Motifs : Base with large medallion of dart and shield alternation (10-repeat fig.37) round central disc. Minute arabesque ground. Narrow border of spindle-and-bead, walls with expanded border on arched trellis with K5 and K4B on minute split palmette arabesque ground.

Published: Scerrato:1967,no.26,fig.24.

(158) Bowl
Venice, Museo Correr
Inv.no.XI.1345.

Brass, engraved, originally inlaid with silver and black compound.
D.(rim) 13.5 cm, H.3.2 cm. Flat base, concave walls.

Motifs : Base undecorated, walls with series of 14 cusped roundels each with arabesque motif fig.55g variant, narrow borders at bottom and rim fig.16c F2 variety, "curl" ground.
Unpublished.

(159) Bowl
Present location unknown
Martin:1902, pl.15, fig.3.

Brass, engraved, originally inlaid with silver and black compound.
Dimensions unknown. Flat base, walls at acute angle to projecting rim.

Motifs : Base unseen, walls with dart and shield arabesque (compare fig.40) on "curl" ground. Rim narrow border fig.16c F2 variant.
Published: Martin:1902, pl.15,fig.3.

(160) Salver Plates 7,8,9.
London, British Museum
Inv.no.1878 12-30 705
Signed (1) *Naqqash^{un}* (or *naqqasha*) *al-mu'allim* (2) *Mahmud* (3) *al-Kurdi yarju* (4) *al-maghfirat^a* (?) *bi-rabbihi* .

Brass, engraved and inlaid with silver. D.29.2 cm, H.3 cm. Flat, with perpendicular walls. Group B.

Motifs : Central concave-sided octagon with engraved arabesque ground centred on 8-pointed star, from alternate points emerger 4 crescents, 4 lime-shaped medallions with minute engraved arabesques with central guilloche knot K1A. From crescents develop 4 roundels with signature between parallel plain fillet borders. Between motifs "linear" scrolling split palmette arabesques on cross-hatched ground (fig.26), border at rim fig.19d. On exterior walls, fig.16c F2 variant, panels fig.13b A2B between 10 small roundels alternating of lotuses (pls 8,9, fig.51a and fig.51c variants) and split palmettes bearing trefoils.

Published: Mayer:1959,57,no.VI.

(161) Salver

Plate 21.

Leningrad, State Hermitage Museum

Inv.no.VC 235

Signed *naqqash^{un}* (or *naqqasha*) *al-mu'allim Mahmud al-Kurdi*.

Brass, engraved and inlaid with silver. Dimensions unknown. Flat, with perpendicular walls. Group B.

Motifs : Central medallion with 8-pointed star formed by intersecting rhombs with signature across centre on cross-hatched ground (fig.77) between plain fillet borders, fleurs de lys above and below, fine arabesque ground, "linear" arabesques in alternate points of star. Narrow border fig.19b with guilloche K1, wide band of alternating large and small ogival medallions, small with engraved arabesque ground, large with Appendix fig.T9h in centre, between panels of heavy "linear" arabesques fig.24, narrow border fig.19a at rim. On rim narrow angular guilloche fig.12a A1 variant. Outside walls unseen.

Published: Migeon:1903,pl.26, Wiet:1932,22,76,259 App.No.481, Müller:1955,40-1, Mayer:1959,56 no.I (with full bibliography).

(162) Salver

Plate 22.

Paris, Musée du Louvre

Inv.no.OA 7526.

Signed *'amal^{un}* (or *'amala*) *al-mu'allim Mahmud al-Kurdi yarju al-maghfir* (sic).

Brass, engraved and inlaid with silver. Dimensions unknown. Flat, with perpendicular walls. Group B.

Motifs : Central concave-sided octagon with minute arabesque ground, signature across centre between plain fillet border on cross-hatched ground, from alternate points 4 lime-shaped medallions filled with minute arabesques, between heavy "linear" arabesque (fig.27) with 4 small fleurs de lys between, narrow border fig.19c at rim. Outside walls unseen.

Published: Mayer:1959,56 no.II.

(163) Salver

Plates 15,16,17,
18.

Baltimore, Walters Art Gallery

Inv.no.54.527

"Signed Mahmud al-Kurdi" (1) illegible (2) (? - distorted) *al-Kurdi yarju al-maghfir* (sic).

Brass, originally inlaid with silver and black compound. Dimensions unknown. Shallow, with cavetto, flat rim. Group 3.

Motifs : Concentric bands from central roundel with unidentified European shield of feline's head, narrow border fig.13b A2B variant, border of scrolling split palmette arabesques on "curl" ground (fig.78), border of "linear" counter-change trefoils on fine arabesque ground, "linear" fleurs de lys with cross-hatched ground, band of alternating cusped medallions and rectilinear panels, panels "linear" scrolling arabesques between, alternating panels of "linear" counter-change trefoils, chain fig.13c A4B variant; cavetto with scrolling

arabesque ground with "linear" stem forming arched divisions, narrow panels of illegible inscriptions on cross-hatched ground; rim with alternating panels of knots, lobed medallions and fig.48a motifs, "signature" on outer rim. For discussion on inscription see Chapter 1, Section 6.

Published: Mayer:1959,57 no.III, Ettinghausen:1966,469.

(164) Salver

London, British Museum

Inv.no.1878 12-30 711

"Signed" (1) *'amalun* (or *'amala*) *al-mu'allim Mahmud ibn al-Kurdi* (?) (2) *'Umar ibn al-mu'allimihi* (sic ?) *min mawlahi*.

Brass, engraved, originally inlaid with silver and probably black compound. D.45 cm, H.4.9 cm. Flat base, with cavetto and broad rim. Group C.

Motifs : Central medallion of 5 intersecting circles forming 5-pointed star, narrow border fig.14c A4B variant with 2 guilloche knots K1A, 2 small arabesques, broad band divided into 5 sections by inlaid wires forming irregular motifs filled with engraved arabesques, narrow border A4B variant, cavetto with alternately reversed fleurs de lys in "linear" arched trellis, rim with 12 lime-shaped medallions within ogival panels on engraved arabesque ground. "Signature" in two panels (fig.79) on outer rim on cross-hatched ground between panels of fig.13b A2B and Appendix fig.T3 TF2C. For discussion of inscription see Chapter 1, Section 6 (1).

Published: Henderson:1868,pl.XIX.

(165) Salver

Baltimore, Walters Art Gallery

Inv.no.54.528.

Brass, engraved and inlaid with silver. D.58.9 cm, H.4.7 cm. Central umbo with concave centre, cavetto and convex rim. Group C.

Motifs : In centre European shield of crowned double-headed eagle (unidentified, perhaps Hapsburg), narrow border fig.12a A1, broad band within umbo of strapwork interlace, 10 guilloche K1A. Main band with similar strapwork around 6 cusped medallions with fig.44a debased variant in centre, narrow guilloche border "Greek key", strapwork in cavetto and on rim with naturalistic foliate infill. Unpublished.

(166) Salver

Boston, Isabella Stewart Gardner Museum

Inv.no. not known.

Brass, engraved and inlaid with silver. D.45.5 cm. Small central umbo with raised border, curved base and deep cavetto, broad rim. Group C.

Motifs : Central 8-pointed star formed by intersecting circles within concave-sided octagon, narrow border Appendix fig.T3 TF2C variant, base and cavetto divided by all-over strapwork into irregular sections filled with irregular guilloche knots. Rim with 8 alternating cusped roundels and panels, with fig.14c A4B variant, fig.22c and fig.22d variants, fig.52g variant. Engraved on reverse narrow border fig.16e variant around central umbo, 4 roundels of arabesques on cavetto.

Unpublished.

(167) Salver

London, British Museum

Inv.no.1878 12-30 708.

Brass, engraved, originally inlaid with silver. D.37 cm, H.3 cm. Central umbo of 6 lobes, cavetto and narrow rim. Group A.

Motifs : In centre blank European shield, 6-petalled rosette to each side, narrow border fig.17c variant, in lobes alternating lotus blossom fig.51a variant and peony fig.52c variant, base 6 roundels of alternating lotus blossom +fig.51a variant and dart-shaped split palmettes bearing trefoil with between 6 panels of alternating pincer *hastae* over debased inscription *al-'ala'i al-ma'ali* (?) and foliage. Cavetto with triangular divisions with lotus buds, rim 12 6-petalled rosettes with alternating panels of fig.17c variant and fig.16d variant.

Published: Henderson:1868, pl.X.

(168) Salver

London, British Museum

Inv.no.1878 12-30 709.

Brass, engraved and originally inlaid with silver. D.41 cm, H.3 cm. Large central umbo surrounded by 6-foil with intermediary darts, forming "daisy", cavetto, narrow rim. Group A.

Motifs : Central medallion of undecorated umbo, surrounded by border of scrolling stems fig.16a variant. Fig.44a variant in each lobe of 6-foil, 5-petalled rosettes to each side of motif and in interstices between darts and lobes. Above each dart small roundel with fig.44a variant, panels between knots fig.2d K2D and fig.4c K3C, cavetto scrolling stems as above, rim triangular divisions with lotus bud infill.

Published: Henderson:1868, pl.X.

(169) Salver

London, British Museum
Inv.no.1878 12-30 710.

Brass, engraved and originally inlaid with silver. D.39 cm. H.4 cm.
Central umbo surrounded by 6-foil with intermediary darts, forming
"daisy", cavetto, narrow rim. Group A.

Motifs : Central medallion with engraved lion rampant, narrow border
fig.16b FlA variant with 3 small roundels fig.52i variant. Lobes
and darts of 6-foil with fig.44a variant, between each dart panel of
scrolling striated split-palmette stems (compare fig.54a), borders in
base and cavetto with 6 roundels fig.44a variant alternating 6 panels
knots fig.2d K2D variant fig.4b K3B variant. Rim with 6 small
roundels fig.52i variant and fig.16b FlA variant.

Published : Henderson:1868, pl.X.

(170) Salver

Paris, Musée des Arts Décoratifs
Inv.no.7565.

Brass, engraved probably originally inlaid with silver. D.40 cm.
Central umbo surrounded by 5-foil with intermediary darts forming
"daisy", cavetto, broad rim. Group A or C.

Motifs : Unseen but visible on illustration narrow borders fig.12c
AlA dividing into 5 semicircular motifs with panels between, both
filled with knotted interlace, figs.22, 10a and b. Rim with 6 small
roundels, panels fig.16a variant, lotus blossoms and fig.13b A2B
between, narrow border of counter-change trefoils.

Published: Metman and Vandroyer:1910, pl.XIII, fig.141.

(171) Salver

Paris, Musée des Arts Décoratifs
Inv.no. Dp.Cluny 177 (2392 5125).

Brass, engraved. D.41.5 cm.

Motifs : Unseen, catalogue reads "Decoration of radiating arabesques
and interlace centred on a sort of central rosette expanded by eight
lobes. On the reverse, a big central rosette and frieze 'à la
chute'".

Unpublished.

(172) Salver
Düsseldorf, Kunstmuseum
Inv.no.19412.

Brass, engraved and inlaid with black compound. D.35.5 cm, H.4 cm.
Central umbo surrounded by 5-foil with intermediary darts forming
"daisy", cavetto, broad rim. Group A or C.

Motifs : Recessed central medallion with 5-pointed star, points
developing into loose arabesque on "curl" ground, narrow border fig.
13b A2B variant, lobes and base similarly engraved with scrolling
arabesques from alternately reversed shield-motifs. Rim with 28
cusped roundels alternately with central 8-pointed star and fig.44a
variant.
Unpublished.

(173) Salver
Florence, Museo Nazionale del Bargello
Inv.no.unknown.

Brass, engraved and originally inlaid with silver. Dimensions
unknown. Central umbo surrounded by recessed 10-foil, 5 darts
between alternate lobes to form "daisy", shallow cavetto, broad rim.
Group A.

Motifs : Central roundel undecorated (3 small indentations may denote
a lost plaque). Umbo with dart and shield alternation (8-repeat
fig.36a variant) border ending with 16 darts round central roundel.
Concave lobes fig.10a with oval medallion on alternate ribs with fig.
49c variant, convex darts fig.22d variant. Panels between lotus and
striated split palmette motifs alternately reversed (compare fig.
54a), narrow border Appendix fig.T3 TF2B, broad border with 6
roundels alternating with 6 panels, 2 roundels of dart and shield
alternation (3-repeat fig.36c), 2 of basket-weave fig.9b, 2 fig.44a
variant; 2 panels of dart and shield alternation fig.42a variant, 2
knots fig.2d K2D fig.4f K3F fig.6c K5B variant, 2 basket-weave fig.
9b, 6-petalled rosettes between, fig.4i K5 variant in interstices;
rim expanded as border above.
Unpublished.

(174) Salver
Copenhagen, David Collection
Inv.no.D23/1986 (A 111/1920).

Brass, engraved and inlaid with silver. D.47.5 cm, H.4.5 cm. Umbo
with recessed central roundel, cavetto and wide rim. Group B or C.

Motifs : Central medallion in 3-part design round central hexagon
formed by 2 intersecting triangles from points of which split pal-
mette arabesques develop. Raised border Appendix fig.T3e TF2C
variant; convex wall of umbo with split palmette arabesques with
guilloche knots K1A leading to main broad band of 7 oblong panels
with central split palmette motif. Cusped lime-shaped medallions on
cavetto and rim, split palmettes fig.62c, knots L1A variant.
Unpublished.

(175) Salver

London, British Museum
Inv.no.1891 6-23 7.

Brass, engraved, possibly originally inlaid with silver and black compound. D.48.7 cm, H.5.3 cm. Central umbo surrounded by 13 repoussé gadroons, cavetto, broad rim. Group A.

Motifs : In centre European shield (unidentified), border fig.13b A2B variant, small roundels fig.52i variant, gadroons with strapwork arabesques; broad border of alternating 6 roundels and panels, 2 roundels fig.44a variant, 2 basket-weave fig.9b, 2 dart and shield alternation (4-repeat fig.38a variant), 2 panels basket-weave fig.9b, 2 dart and shield alternation fig.42a variant, 2 knots fig.2d K2D fig.4b K3B fig.6c K5B variant, 6-petalled rosettes between, narrow border fig.16b FlA variant. Rim as base border.
Unpublished.

(176) Salver

Plates 41,42.

London, Courtauld Institute
Inv.no.44 (Gambier-Parry 102).

Brass, engraved, inlaid with silver. D.45.7 cm. Umbo with repousée border, cavetto, convex rim. Group C.

Motifs : Central roundel with European shield (Giustiniani or Sagredo) surrounded classical wreath. Strapwork cartouches, masks, birds, grotesques.
Published: Robinson:1967,170 no.202.

(177) Salver

London, Courtauld Institute
Inv.no.89 (Gambier-Parry 88).

Brass, engraved and inlaid with silver. D.54.5 cm. Umbo with repoussé gadrooned border, cavetto, broad rim. Group B or C.

Motifs : Fine engraved arabesques in central roundel, broad border round gadrooning of alternating cusped rhombs and fleurs de lys filled with fine arabesques, heavy "linear" arabesques between, narrow border fig.113b A2B variant. Cusped panels and rhombs on rim each with border of "linear" arabesques and filled with fine engraved stems.

Published: Robinson:1967,170,no.196,fig.89.

(178) Salver

Present location unknown

London, Spink and Son, May 1977, no.159.

Brass, engraved and inlaid with silver. D.40.7 cm, H.11.4 cm.
Flat, with cavetto, broad rim. Group B.

Motifs : All-over web of "linear" divisions from central 8-pointed star on arabesque ground. Rim of alternate octagons and panels, border fig.12d AlA.

Published: Spink and Son, May 1977, no.159.

(179) Salver

Paris, Musée des Arts Décoratifs

Inv.no.4477.

Brass, engraved and inlaid with silver. D.40 cm. Flat, with cavetto, broad rim. Group B.

Motifs : All-over network of linear arabesques on fine engraved ground.

Published: Metman and Vandroyer:1910, pl.XIII, fig.143.

(180) Salver

Plates 51,52.

London, Courtauld Institute

Inv.no.77 (Gambier-Parry 107).

Brass, engraved and inlaid with silver. D.42.3 cm. Flat, with cavetto, broad rim. Group B.

Motifs : Concentric bands, central roundel of split palmette arabesque, narrow border 16e F2B variant, border with fleurs de lys, "linear" arabesques, rhombs, ogival panels, narrow border fig.13b A2B, border with alternating 4 lime-shaped medallions and vertical panels filled with fine arabesques, "linear" arabesques between, border as above. Rim with cusped rhombs and panels with fine arabesques, "linear" arabesques between.

Published: Robinson:1967,170, no.197.

(181) Salver

Turin, Museo Cividale

Inv.no.2571.

Brass, inlaid with silver. D.42cm. Flat, with cavetto, broad rim. Group B or C.

Motifs : From central 11-foil with unevenly sized lobes surrounded by 4-part design of 4 split palmettes (fig.62g variant, 3 with hatched ground, 1 cross-hatched) and "linear" cusped ogees on arabesque ground. Divisions irregular in size. At border 4 areas apparently abandoned unfinished, with guiding drilled marks and lines visible. On rim cusped rhombs and ogival panels with debased fig.52f and i. Unpublished.

(182) Salver
Naples, Museo Capodimonte
Inv.no.918.

Brass, engraved and possibly originally inlaid with black compound.
D.43 cm. Flat, with cavetto, broad rim. Group C.

Motifs : From central roundel with debased fig.44a variant split palmette arabesques in concentric bands to border. Although based on Appendix fig.TB interlaced borders, alternation misunderstood and awkwardly measured. Knots KAl, darts and trefoils. All-over fine arabesque ground.

Published: Scerrato:1967,cat.no.35,fig.25.

(183) Salver
Düsseldorf, Kunstmuseum
Inv.no.17817.

Brass, engraved and possibly originally inlaid with black compound.
D.47 cm, H.5 cm. Flat, cavetto, broad rim. Group A.

Motifs : Concentric bands, central medallion with heraldic or emblematic bird, probably pelikan. Border with split palmette scrolls, narrow border A1, band alternating panels, 3 fig.10a, 3 with central cusped roundel of lotus variations, narrow border of alternating panels of fig.13a A2A variant, Appendix fig.T3e TF2c variant with 6 small roundels with 6-legged swastika. Rim with 6 roundels, 3 with pelikans as central roundel, 3 with fig.55d variant, ogival panels between as base, narrow border fig.16c F2 variant.
Unpublished.

(184) Salver
London, Victoria and Albert Museum
Inv.no.M.463-1922.

Brass, engraved and inlaid with silver. D.45.7 cm. Flat, with cavetto, broad rim. Group B.

Motifs : From central 7-pointed star, geometric interlaced "linear" straps radiate out formed large central sun-disc or flower. From multiple points strapwork develops into irregular geometric shapes to cover base and rim of salver. Ground filled with minute arabesques, roundels with swastikas, 6-petalled rosettes and "curls". At transition between cavetto and rim 28 evenly spaced 8-pointed stars. Narrow border Appendix fig.T2b TA2 at rim edge.
Unpublished.

(185) Salver

Plate 19.

London, Victoria and Albert Museum
Inv.no.2061-1855.

Brass, engraved and inlaid with silver, black compound and possibly gold. D.49.5 cm. Flat, with cavetto, broad rim. Group B.

Motifs : Central medallion with unidentified arms, probably once inlaid with gold because of indentations, scrolling arabesque ground. Around "linear" split palmette divisions into cusped rhombs, indentations under "spatially" inlaid silver foil. Knots K1A and K1A variant, fleurs de lys fig.62d variant, sub-divided palmettes fig.62c variant with cross-hatched ground, fine arabesque ground throughout. Similar divisions on rim.

Published: Mayer:1959,57 no.V; Huth:1971,3.

(186) Salver

London, Victoria and Albert Museum
Inv.no.258-1894.

Brass, engraved and inlaid with silver. D.51.5 cm. Flat, with cavetto, broad rim. Group C.

Motifs : Central "maze" or labyrinth, probably arms of Gonzaga family (Hall:1974,185), narrow border of chain link, strapwork to border Appendix fig.T2c TA3 variant, strapwork divisions on rim.
Unpublished.

(187) Salver

London, Victoria and Albert Museum
Inv.no.259-1894.

Brass, engraved and inlaid with silver. D.45.8 cm. Small umbo, cavetto, broad rim. Group C.

Motifs : Central medallion of interlaced straps around rhomb, narrow border Appendix fig.T2c TA3 variant, broad band with cusped roundels and panels with knots and arabesques, cavetto similarly with cusped divisions with knots and arabesques, and rim also.
Unpublished.

(188) Salver

Plate 20.

London, Victoria and Albert Museum
Inv.no.M.464-1922.

Brass, engraved and probably originally inlaid with silver, now gilt. D.28.3 cm. Flat, with perpendicular walls. Group B.

Motifs : 4 fleurs de lys form cruciform design at centre round engraved 12-pointed star, border with 4 fleurs de lys fig.62d variant, cusped ogees between, border with 4 lime-shaped medallions, heavy arabesques with small fleurs de lys fig.62d variant. Outer border appears unfinished (pl.20, compare cat.no.180).
Unpublished.

(189) Salver
London, Victoria and Albert Museum
Inv.no.M.41-1946.

Brass, engraved and inlaid with silver. D.49.5 cm.

Motifs : Unseen, described in catalogue as "unbroken series of arabesque radiating out from central point of dish. Rim engraved with arabesques contained by outer border of interlaced strapwork". Unpublished.

(190) Salver
Paris, Musée des Arts Décoratifs
Inv.no.GR.163.

Brass, inlaid with silver. D.48 cm.

Motifs : Unseen, catalogue reads "decoration of geometric ornament". Unpublished.

(191) Salver
Berlin, Museum für Islamische Kunst
Inv.no.I.3615.

Brass, engraved and inlaid with silver. D.41 cm, H.5 cm. Flat, with cavetto and broad rim. Group B or C.

Motifs : From central 12-pointed star, alternate guilloche knots K1A and K4A variant developing into split palmette stems, border of alternate cusped octagons and panels with guilloche K1A between, filled with fig.44a variant, fig.14c A4B variant, triple bands of scrolling arabesques, cavetto with loosely entwined stems, rim with alternate rhombs and cusped hexagons with small K1A. Despite apparent Islamic nature of motifs, unusual arrangement may point to European provenance.

Published: Sarre:1906,no.101,fig.39; Museum für Islamische Kunst:1967,no.159,fig.21; 1971,no.338; 1979,no.338,fig.52.

(192) Salver
London, British Museum
Inv.no.1878 12-30 712.

Brass, engraved and inlaid with silver. D.44.8 cm, H.2.5 cm. Flat, with cavetto, broad rim. Group B or, more probably, C.

Motifs : From central hexagon 6-part design of elaborate fig.62f variant, 6 lime-shaped medallions outlined in leaf-bearing stems not seen elsewhere on objects listed here, on fine arabesque ground. Rim with 16 ogival, waisted cartouches filled with fine arabesques with heavy "linear" arabesques between, springing from fig.55d variant, guilloche knots K1A. Unpublished.

(193) Salver

London, British Museum
Inv.no.1878 12-30 713.

Brass, engraved and inlaid with silver. D.45 cm, H.4.8 cm. Flat, with cavetto, broad rim. Group B.

Motifs : From central concave-sided octagon, 8 linked ogees intersect to form intermediary ogees, crossing narrow border and developing outwards in continuous pattern to cavetto. Guilloche knots K1A, fine scrolling arabesques over "curl" ground, on rim narrow border angular guilloche A1 with border between of 8 small panels filled with fig.13b A2B variant, between pairs of affronted fleurs de lys with concave-sided hexagons. "Curl" ground.
Unpublished.

(194) Salver

London, British Museum
Inv.no.1878 12-30 714.

Brass, engraved, originally inlaid with silver. D.47.5 cm, H.6.8 cm. Flat, with cavetto, broad rim. Group B (or possibly Group C).

Motifs : From central 8-pointed star, alternate points with fleurs de lys develop outwards in 4-part design of split palmette stems to form divisions of intersecting lobes; split-palmette fig.62c; 3 unfinished at border (metal to be removed and not yet cross-hatched as majority, compare cat.nos.180 and 187 above), 4 lobed lime-shaped medallions, complex knots single fig.4g K4A, fine arabesque ground; narrow border fig.13a A2A, edge of cavetto with angular guilloche A1, rim with 6 cusped lime-shaped medallions, cusped panels between with fleurs de lys terminals. All-over fine arabesque ground.
Published: Lane-Poole:1886/1,452-53 pl.II, described as Western.

(195) Salver

London, British Museum
Inv.no.1957 2-2 3.

Brass, engraved and originally inlaid with silver. D.40.3 cm, H.4.5cm. Flat, with cavetto, broad rim. Group B.

Motifs : From central 8-pointed star, interlacing straps form "sun-burst" or flower motif, 16 small guilloche knots K1A at edge. Around circle of 16 8-pointed stars formed by interlacing straps, divisions developing outwards up cavetto. On edge of rim, narrow border fig.16c F2 variant, rim with alternating 16 small panels with 16 small cusped roundels between, both filled with basket-weave fig. 9a, "linear" half-split palmettes at edge, narrow border fig.12d A1A, all-over fine arabesque ground.
Unpublished.

(196) Salver

London, British Museum
Inv.no.1957 2-2 4.

Brass, engraved, originally inlaid with silver. D.38 cm, H.4.5 cm.
Flat, with cavetto, broad rim. Group C.

Motifs : Concentric bands, from central 8-pointed star strapwork arabesques; narrow border fig.15a A1B variant, band with 8 lime-shaped medallions, alternately with 8-pointed star and fig.55g variant, panels of heavy "linear" arabesques between, narrow border A1 at cavetto with wider A2A between; on rim 8 roundels, alternately fig.44a variants and 8-pointed star, between 8 panels alternately fig.15b A4C variant and debased knots fig.2 K2 and fig.4 K3.
Unpublished.

(197) Salver

Vienna, Österreichisches Museum für Angewandte Kunst
Inv.no.G0.81
Signed Nicolo Rugina da Corfu, dated 1550.

Brass (or bronze), engraved and inlaid with silver. Dimensions unknown. Flat with shallow cavetto and broad rim. Group C.

Motifs : From a central medallion with European shield, 5-part division of ground by 5 lime-shaped medallions of attenuated split palmettes, other similar stems intersecting, with trefoil motif appearing in centre of each medallion. Between guilloche knots lead to fleurs de lys (fig.62d variant) and cusped medallions. Design continues with unchanging emphasis to border of rim, where half-palmettes fig.62c variant abut plain fillet edge. All-over arabesque ground.

Published: (References) Migeon:1927,vol.2,fig.271; Huth:1970;
Atil,Chase and Jett:1985,178,fig.63; Allan:1986.

(198) Dish

Berlin, Museum für Islamische Kunst
Inv.no.Sarre:1902 no.96
Signed '*amal^{un}*' (or *amala*) *al-mu'allim Muhammad*.

Brass, engraved. D.12.2 cm, H.18 cm. Flat base, sloping walls, narrow rim. Group B.

Motifs : From central disc, 6-part design of split palmette arabesque panels with 6 cusped lime-shaped medallions, 6 fleurs de lys complex fig.62f variant between, cross-hatched ground, narrow borders F2 variant over scrolling stem F1 variant, fig.17d; interior walls with 6 cusped lime-shaped medallions with scrolling arabesques, 6 panels between, 8-petalled rosettes above and below; rim with signature hidden among border scrolls as above. Outside walls split palmette arabesques.

Published: Martin:1902,pl.16; Sarre:1906,43 no.96,fig.35,pl.VI,1;
Mayer:1959,63.

(199) Candlestick
Venice, Museo Correr
Inv.no.XII 22.

Brass (or bronze), engraved and inlaid with gold and silver.
D.(base) 8.5 cm, D.(shoulder) 8 cm, H.11.3 cm. Short straight
shaft, flat shoulder, bell-shaped base. Group A.

Motifs : On base, shield with arms of Malipiero (see Coronelli:1694)
in gold, panels between fig.54a variant, narrow border fig.17c
variant, 5-petalled rosettes.
Unpublished.

(200) Candlestick
Venice, Museo Correr
Inv.no.XII M.24.

Pair to above.

(200) Candlestick
Venice, Museo Correr
Inv.no.XII 23.

Plate 13.

Brass, engraved, originally inlaid with silver. D.(base) 8.5 cm, D.
(shoulder) 8 cm. Short straight shaft, flat shoulder, bell-shaped
base. Group A.

Motifs : On base 2 shields with (1) unidentified arms of plumed
helmet over concentric circles and (2) monogram with cross. Between
fig.54a variant, zig-zag border, debased kufic *lam 'ain alif* on
shoulder.
Unpublished.

(202) Candlestick
Venice, Museo Correr
Inv.no.XII 25.

Brass, engraved, originally inlaid with silver. D.(base) 8.5 cm,
D.(shoulder) 8 cm, H.10.5 cm. Short straight shaft, flat shoulder,
bell-shaped base. Group A.

Motifs : On base shield with arms of Malipiero (see Coronelli:1694)
with panels between of lotus blossom and 5-petalled rosettes, narrow
border fig.16c F2 variant. On shoulder 5-petalled rosettes and
fig.52f.
Unpublished.

(203) Candlestick

Plate 12.

London, Victoria and Albert Museum
Inv.no.2095-1855. Plate no.

Brass, engraved and inlaid with silver. D.9.1 cm, H.15.2 cm.
Short straight shaft, flat shoulder, bell-shaped base. Group A.

Motifs : On base cusped roundel with shield, scratched arms still visible perhaps originally inlaid with gold and silver (different fixing patterns). Panels between fig.54a variant. Narrow border of series of ovals with central point. Shoulder scrolling stems, diaper on shaft.

Unpublished.

(204) Candlestick

London, Victoria and Albert Museum
Inv.no.2438-1856.

Brass, engraved and originally inlaid with silver. D.10.1 cm, H.17.1 cm. Tall straight shaft, flat shoulder, bell-shaped base. Group A.

Motifs : On base, shield with unidentified arms, between panels fig.54a variant. Shoulder fig.17c variant.

Unpublished.

(205) Candlestick

London, Victoria and Albert Museum
Inv.no.2439-1856.

Brass, engraved brass, probably originally inlaid with silver. D.10.4 cm, H.17.8 cm.

Motifs : Unseen.

Unpublished.

(206) Candlestick

Berlin, Museum für Islamische Kunst
Inv.no.I.3612.

Brass (or bronze), engraved and inlaid with silver. D.9.5 cm, H.18.5 cm. Straight shaft, flat shoulder, bell-shaped base. Acquired in Beirut, 1897. Group A.

Motifs : On base, shield with arms of Riccio or Gatta, between knots fig. K2d K2D, fig.4c K3C variant, "curl ground", narrow border of dart-shaped motifs and running stems fig.16c variant, small roundels fig.52b. Shoulder with 3 cusped roundels fig.44a variant, knots K2D K3C variant between, border as base.

Published: Sarre:1906,44,fig.36,no.98; Museum für Islamische Kunst:1971,no.334; 1979,no.335.

(207) Candlestick

Berlin, Museum für Islamische Kunst
Inv.no.I.3613.

Brass or bronze, engraved and originally inlaid with silver. D.9.5 cm, H.15 cm. Straight shaft, flat shoulder, bell-shaped base. Group A.

Motifs : On base, roundels fig.44a variant, panels between fig.54a variant, narrow border fig.16b FlA variant, small roundels fig.52i variant. Shoulder as base. "Curl" ground.

Published: Sarre:1906,44,fig.37,no.99.

(208) Candlestick

Düsseldorf, Kunstmuseum
Inv.no.18960.

Brass or bronze, engraved and inlaid with silver. D.10 cm, H.13.5 cm. Short straight shaft, flat shoulder, bell-shaped base. Group A.

Motifs : On base, roundel with cusped fillet border with blank circular space for arms surrounded by loose A1 variant stems, between scrolling split palmette interlace fig.41b variant, narrow border as before. Shoulder as base.

Unpublished.

(209) Candlestick

Düsseldorf, Kunstmuseum
Inv.no.18959.

Brass, engraved, inlaid with silver. Base only, D.14 cm, H.6.8 cm. Slightly concave shoulder, flaring bell-shaped base. Group B.

Motifs : "Linear" division into cusped fleurs de lys (fig.69b E1) and rhombs on fine arabesque ground, fig.62d variant, half fig.62c at border. Foot in two bands, fleurs de lys, rhombs and fig.62d variant, narrow border of split palmette stems forming trefoils. Shoulder (damaged) as base.

Unpublished.

(210) Candlestick

Jerusalem, L.A. Memorial Institute for Islamic Art
Inv.no.M.277a-78.

Brass, engraved and originally inlaid with silver. D.9 cm, H.6.5 cm. Tall straight shaft, flat shoulder, bell-shaped base (adapted to hand-bell). Group A.

Motifs : On base, blank European shield, panels between fig.54a variant, at top narrow border of darts. Shoulder as base panels.

Unpublished.

(211) Candlestick

Jerusalem, L.A. Mayer Memorial Institute for Islamic Art
Inv.no.M.277b-78.

Pair to above but unadapted.

Unpublished.

(212) Candlestick

Boston, Museum of Fine Arts
Inv.no.66.428.

Brass, inlaid with silver. D.8.2 cm, H.13.7 cm. Short straight shaft, slightly concave shoulder, bell-shaped base. Group A.

Motifs : On base, shield with unidentified arms of 3 rosettes (possibly Barbaro, see Coronelli:1694), panels between with split palmettes round central lotus blossom fig.55d variant, chevron border fig.17d variant. Shoulder with 6-pointed star from bottom shaft, points with lotus blossom infill.

Unpublished.

(213) Candlestick

Bologna, Museo Civico Medievale
Inv.no.2106.

Brass, engraved, originally inlaid with silver and black compound. D.(base) 9.4 cm, D.(shoulder) 9.5 cm, H.16.5 cm. Tall straight shaft, flat shoulder, bell-shaped base. Group A.

Motifs : On base, roundel with blank shield, between panels of knots fig.2d K2D, fig.4g K4A variant, narrow borders fig.16d F2A variant, darts. Shoulder with 2 roundels with lotus blossom variants, between, knots as base.

Unpublished.

(214) Candlestick

Bologna, Museo Civico Medievale
Inv.no.2108.

Brass, engraved, originally inlaid with silver and black compound. D.(base) 9.2 cm, D.(shoulder) 9.3 cm, H.16.7 cm. Tall straight shaft, flat shoulder, bell-shaped base. Group A.

Motifs : On base, 2 European shields originally inlaid, panels between with knots fig.2d K2D, fig.4h K4B, narrow borders fig.16e F2B, at top reversed trefoils, "curl" ground. Shoulder with 3 roundels of dart and shield alternation (3-repeat fig.36c) with knots fig.2g K2G fig.4g K4A.

Published: Scerrato:1966,fig.62.

(215) Candlestick)

Bologna, Museo Civico Medievale
Inv.no.2107.

Brass, engraved and inlaid with silver and black compound. D.(base) 10.8 cm, D.(shoulder) 10 cm, H.19.5 cm. Baluster stem, concave shoulder, bell-shaped base. Group A.

Motifs : On base, 4 roundels with dart and shield alternation (3-repeat fig.36c variant), knots between fig.2d K2D fig.4e K3E variant, narrow borders fig.14b A4A variant, small roundels fig.52i variant. Shoulder as base, stem fig.9a.

Published: Scerrato:1966,fig.62.

(216) Pair of Candlesticks

Private Collection
Aron no.20.

Brass, inlaid with silver and black compound. D.13.2 cm, H.25.3 cm. Baluster stem, concave shoulder, bell-shaped flaring base. Group C.

Motifs : On base, alternating roundels and oblong panels, 2 roundels with European shield (Belegno, Allan:1986,106), panels with knots K2 variant, K4 variant and K5 variant, between small roundels with 5-petalled rosettes, interstices K5 variant. Shoulder with arabesques between narrow angular fig.12b A2 and fig.16d F2A variant panels, small roundels with 4-petalled rosettes between.

Published : Allan:1986,106-7,no.20.

(217) Candlestick

Plate 11.

London, British Museum
Inv.no.1878 12-30 720.

Brass, engraved and inlaid with silver and gold. H.12.5 cm. Straight shaft, flat shoulder, bell-shaped base. Group A.

Motifs : On base, blank shield with fig.54a between, narrow border fig.17c variant. Shoulder with split palmette dart-shaped motifs with lotus buds between, 5-petalled rosettes.

Unpublished.

(218) Candlestick

London, British Museum
Inv.no.1878 12-30 722.

Brass, engraved and inlaid with silver and gold. H.20.5 cm. Baluster stem, flat shoulder, bell-shaped base. Group B.

Motifs : On base, linear strapwork on all-over arabesque ground.
Unpublished.

(219) Candlestick

London, Victoria and Albert Museum
Inv.no.M.69-1934 and M.69A-1934.

Brass, engraved and inlaid with silver, later gilt. D.17.7 cm, H.17.7 cm. Details unknown, catalogue describes as "moulded socket, wide gease-pan with depressed centre and spreading base".

Motifs : Unseen, catalogue reads "Engraved with arms of Donado and Giustiniani".
Unpublished.

(220) Candlestick

London, Victoria and Albert Museum
Inv.no.2184-1855.

Brass or bronze, engraved and inlaid with silver. D.17.8 cm, H.17.2 cm. Baluster stem, concave shoulder, bulbous base. Group C.

Motifs : On base, concentric bands of strapwork. On neck unidentified shield.
Unpublished.

(221) Candlestick

London, Victoria and Albert Museum
Inv.no.574-1899.

Brass or bronze, engraved and originally inlaid with silver. D.17.8 cm, H.18.4 cm. Details unknown, baluster stem. Probably Group C.

Motifs : Unseen, catalogue reads "ornamented with bands of arabesque foliage edged with narrow ornamental borders".
Unpublished.

(222) Candlestick

London, Victoria and Albert Museum
Inv.no.575-1899.

Brass or bronze, engraved and inlaid with silver. D.15.2 cm, H.15.8 cm. Details unknown, baluster stem. Probably Group C.

Motifs : Unseen, catalogue reads "ornamented with compartments of foliage and interlacements, on a ground of foliage, enclosed between floral borders; its spreading top and baluster-shaped stem are enriched with similar ornament".
Unpublished.

(223) Candlestick

London, Victoria and Albert Museum
Inv.no.553-1865.

Brass, engraved and inlaid with silver. D.17.8 cm, H.19.7 cm.
Baluster stem, concave shoulder, bulbous base. Group C.

Motifs : Strapwork divisions on engraved ground, quartered shield on stem.

Published: Mackay Thomas:1942, pl.1,fig.5.

(224) Candlestick

London, Victoria and Albert Museum
Inv.no.307-1897.

Brass, engraved and inlaid with silver. D.13 cm, H.24 cm. Baluster stem, concave shoulder, spreading bell-shaped base. Group B.

Motifs : On base, 3 concentric bands, 2 with alternating roundels and oblong panels filled with engraved arabesques, on foot Appendix fig.T3e TF2c, narrow fig.16c F2 angular A1 to each side on central rib; shoulder as base. Stem borders TF2c, narrow borders fig.16e F2B.

Published: Mackay Thomas:1942,pl.1,fig.6.

(225) Candlestick

Edinburgh, Royal Scottish Museums
Inv.no.1877 20-48.

Plate 53.

Brass, engraved and inlaid with silver. D.17.7 cm. Baluster stem, concave shoulder, bulbous base. Group C.

Motifs : Concentric bands of narrow borders fig.13b A2B variant and engraved arabesques with inlaid strapwork.

Unpublished.

(226) Candlestick

New York, Metropolitan Museum of Art
Inv.no.17.190.637.

Brass, engraved and inlaid with silver. D.18 cm, H.19.1 cm.
Baluster stem, concave shoulder, bulbous base. Group C.

Motifs : Concentric bands of strapwork forming cusped roundels with fig.44a variant and panels of inlaid arabesques, narrow border fig.16d F2A variant.

Unpublished.

(227) Candlestick
Paris, Musée des Arts Décoratifs
Inv.no. Dp.Louvre 201.

Brass, inlaid with silver. Baluster stem, bulbous base. No details.

Motifs : Unseen, catalogue reads "decoration of curved interlaced straps and stylised foliage".
Unpublished.

(228) Candlestick
Paris, Musée des Arts Décoratifs
Inv.no. unknown.

Brass, engraved and inlaid with silver. Dimensions unknown. Tall straight shaft, flat shoulder, bell-shaped base. Group A.

Motifs : On base, European shield, panels fig.54a to each side.
Published: Metman and Vandroyer:1910,pl.XIII,fig.142.

(229) Candlestick
Berlin, Museum für Islamische Kunst
Inv.no.I.3614.

Brass or bronze, engraved and inlaid with silver. D.17 cm, H.16 cm.
Baluster stem, concave shoulder, bulbous base.

Motifs : Concentric bands of split palmette stems on engraved ground, shoulder Appendix fig.T3e TF2c.
Published: Sarre:1906,44,fig.38,no.100.

(230) Bucket
Washington, Freer Gallery of Art
Inv.no.45.14.

Brass, engraved and inlaid with silver and black compound; inside gilded. D.30.2 cm, H.(without handle) 16.9 cm. Straight walls, projecting rim, gently rounded base, bail handle from brackets.
Group B.

Motifs : Base. Central roundel with 2 intersecting pentagons forming 10-pointed star at centre, with around alternating 5 fleurs de lys fig.62d and 5 trefoils from 2-strand border (compare Appendix fig.T6c TB2); from fillet border 10 split palmette "darts" develop into intersecting geometric motifs, knots double fig.4d K3D variant, fig.62d, fine arabesque ground, cross-hatching and "curl" ground to individual motifs.

Walls. At top and bottom, borders of cusped "linear" fleurs de lys fig.69b E1 variants and ogival divisions on arabesque ground. Main band, "linear" heart-shaped and E1 divisions incorporating fig.62c variant and K5 in split palmette stems on all-over fine arabesque ground. On rim, fig.15a A1B variant. Inside rim, deep border of "linear" fleurs de lys and "dart" divisions on hatched ground.

Published: Atil, E. Exhibition of Twenty-Five Hundred Years of Persian Art, Washington 1971, no.62; Atil:1975,146-147 no.79; Atil, Chase and Jett:1985,176-180.no.24.

(231) Bucket

München, Stadtliche Museum für Volkerkunde
Inv.no.26.N.44.

Brass, engraved and inlaid with silver. D.22.5 cm. Straight walls at slightly acute angle to base, projecting rim, gently rounded base with low foot, bail handle from brackets. Group B.

Motifs : Base unseen.

Walls. All-over design of "linear" geometric divisions incorporating cusped cruciform shapes, guilloche knots fig.1a K1A and irregular polygons on fine arabesque ground. Rim Appendix fig.T2b TA2 variant. No interior border.
Unpublished.

(232) Bucket

Present location unknown

Sotheby's, London, 1985 no.403.

Brass, engraved and inlaid with black compound. Dimensions unknown. Straight walls, narrow projecting rim, gently rounded base with low foot, bail handle from brackets. Group A.

Motifs : Base. Unseen.

Walls. At bottom, border fig.13c A4B variant, top and bottom borders fig.16a F1 variant reversed to form chain, main band with roundel with blank shield, oblong panels of knots fig.2d K2D fig.4b K3b fig.6c K5B with small roundels of 6-petalled rosettes between; in interstices fig.55e variant and 6-petalled rosettes, "curl" ground.

Published: Sotheby's:1985 no.403.

(233) Bucket

Plate 32.

Madrid, Museo Fundacion Lazaro Galdiano

Inv.no.2357

Signed (probably) (1) *'amal'un* (or *'amala*) *al-mu'allim Mahmud a* (sic) *al-Kurdi yarju al-maghfirat.*

Brass, engraved and inlaid with silver. D.25.5 cm, H.(top) 12.5 cm. Mounted on candlestick base as foot, bucket with concave walls. Group B.

Motifs : Base hidden by added foot.

Walls. Signature appears under lower walls on angled base in two panels. Unphotographed but kindly copied for me by the Curator of the Lazaro Galdiano Museum, who is a non-Arabic speaker, the inscription probably reads as above. Between, border fig.14c A4B variant. On bottom of walls, border of scrolling stems on hatched ground fig.16b F1A variant, narrow chevron fig.17d, main band of "linear" scrolling stems based on contiguous circles with intermediary rhombs, so arranged as to form shield-shapes, in 2 strata. At lip, narrow A1 with fig.16e F2B between. Fine arabesque ground.

Published: Museo Nacional de Arte Antiga, Lisbon 1945,no.61; Pijoan:1949,199,fig.265; Mayer:1959,57,no.XVIII.

(234) Bucket

Venice, Museo Correr
Inv.no.XI 1341.

Brass, engraved, originally inlaid with silver. D. 18.3 cm. Straight walls with central rib, gently rounded base with low foot, flared rim, bail handle from brackets. Group B.

Motifs : Base. "Linear" cruciform and cusped polygon divisions from central cruciform motif around 12-pointed star, each division filled with arabesques based either on 6-pointed star interlace, lotus blossom or fig.48a variant. Lower walls, border similarly fig.48a variant with series of shield-motifs alternately reversed, ribs at top, bottom and centre with narrow borders of spindle-and-dart motif; two main bands based on series of intersecting circles, forming 4-petalled rosettes, 10-pointed stars round central guilloche knot K1A and cusped octagons on fine arabesque ground. Rim fig.16e F2B variant. No interior border.
Unpublished.

(235) Bucket

München, Stadtliche Museum für Volkerkunde
Inv.no.I.1432.

Brass, engraved and inlaid with silver. Dimensions unknown. Concave walls, rounded base with low foot, central rib, flaring lip, handles and fixings lost. Group B.

Motifs : Base. Unseen.

Walls. Lower border Appendix fig.T3e TF2c variant. Top and bottom, narrow angular guilloche A1; central rib 2 narrow fig.16c F2 variant, chain fig.14b A4A variant, angular A1. Lower main band with "linear" divisions into alternating cusped fleurs de lys fig.62d and fig.69b E1 variants, lotus blossoms fig.51a and fig.51c variants and fine arabesque ground; upper band with "linear" divisions from fig.62d variant to form intermediary fleurs de lys on fine arabesque ground. Rim fig.13b A2B variant.
Unpublished.

(236) Bucket

London, British Museum
Inv.no.1878 12-30 728.

Brass, engraved and inlaid with silver. D.27.3 cm, H.14.9 cm. Sloping walls at acute angle to flat base, central rib, projecting rim, bail handle from brackets. Group B.

Motifs : Base. Unseen.

Walls. At top and bottom, narrow border angular fig.14b A4A variant, central rib "feather" chevron Appendix fig.T5b TG5; lower main band, alternating "linear" cusped ogees and complex fleurs de lys fig.62f variant filled with split palmette arabesque on cross-hatched ground, between fine arabesque ground; upper band "linear"

cusped ogees (above and reversed to those below) alternating with fig.62d variant with "linear" arabesques on cross-hatched ground, between fine arabesque ground. Rim fig.16c F2 and 16d F2A variants. Published: Henderson:1868,pl.XIX.

(237) Bucket

London, British Museum
Inv.no.1957 2-2 5.

Brass, engraved, inlaid with silver. D.19.7 cm, H.11 cm. Straight walls at slightly acute angle to base, central rib, low foot, zoomorphic handle from brackets. Group B.

Motifs : Base. Unseen.

Walls. Bottom of walls, narrow border fig.12d A1A, 5 parallel fillets; central rib also with 5 fillets, and 2 fillets at top of walls; lower main band, "linear" divisions into alternating cusped roundel and vertical ogival panels, filled with arabesques, panels of fig.14c A4B between. Upper main band similar. Rim fig.13b A2B, "curl" ground. Unpublished.

(238) Bucket

London, British Museum
Inv.no.1957 2-2 6.

Brass, engraved and perhaps originally inlaid with silver. D.22.7 cm, H.9 cm. Straight walls at acute angle to flat base, zoomorphic handle. Group B.

Motifs : Base. Central roundel with rhomb from angles of which 4 fleurs de lys fig.62d variant emerge, half motifs fig.62c at border. Band around with 4 cusped roundels with 4 small panels between joined by single knot fig.4b K3B variant, fine arabesque ground. Border Appendix fig.T3e TF2c. Unpublished.

(239) Bucket

New York, Metropolitan Museum of Art
Inv.no.1974.119.

Brass, engraved. D.26 cm, H.(without handle) 12.2 cm. Concave walls with two ribs, flat base, zoomorphic handle from brackets. Group B.

Motifs : Base. Unseen.

Walls. Lower rib worn, 2 narrow borders fig.16e F2B variant, rib fig.12b A2B variant, narrow border fig.16c F2 variant, main band of split palmette stems forming cusped cruciform motifs round central guilloche knot K1A, fig.62d variant on cross-hatched ground, half fig.62c at border. Interior rim border Appendix fig.T6a TB1 variant. Unpublished.

(240) Bucket

Plate 58.

Hamburg, Museum für Kunst und Gewerbe
Inv.no.1878 739.

Brass, engraved and inlaid with silver. D.22.8 cm, H.11.8 cm.
Concave walls, flat base, rib, zoomorphic handle from brackets.
Group B.

Motifs : Base. 4-part design from central point, guilloche knots K1A enclosed in split palmette "darts", narrow border fig.16c F2, broad band of "linear" straps forming ogival medallions and half fleurs de lys at border, each filled with individual fine arabesque ground, narrow border A1 guilloche on cross-hatched ground, narrow border F2 variant.

Walls. At bottom, border of counter-change ogees on fine arabesque ground, rib with border of ogival divisions through which break straps supporting alternately reversed fleurs de lys fig.62d, narrow borders fig. 13b A2B variant above and below main band of alternate cruciform motifs and vertical panels, fig.69a. Rim narrow border fig.15a A1B. Interior border.
Unpublished.

(241) Bucket

Jerusalem, L.A. Mayer Memorial Institute for Islamic Art
Inv.no.M.203

Signed (1) *'amalun* (or *'amala*) *al-mu'allim Muhammad* (2) *ibn al-mu'allim 'Ali* (3) (?) *al-'abd yarju al-maghfirat* (4) *min mawlahi al-* (?).

Brass, engraved and inlaid with silver. Dimensions unknown.
Concave walls, flat base, zoomorphic handle from brackets. Group B.

Motifs : Base. Unseen.

Walls. Lower wall worn. Narrow band of scrolling split palmette stems above and below main band of "linear" cusped rhombs alternating with central panel of inscription on cross-hatched ground and cusped panels with arabesques, round each rhomb a narrow border of scrolling split palmette stems, ground between fine arabesques, lip, narrow border fig.13b A2B.
Unpublished.

(242) Bucket

Plate 56.

Milan, Museo Poldi Pezzoli
Inv.no.1659.
"Signed *Muhammad Badr*".

Brass, engraved and inlaid with silver. D.31.5 cm. Concave walls, flat base, 2 handles from brackets. Group B, handles Group C.

Motifs : Base. Large roundel of linear split palmette stem developing from central 8-pointed star to form ogival divisions linked with guilloche knots K1A on all-over fine arabesque ground. 12 plain fillet circles with tiny angular guilloche A1 between, border of split palmette fig.15a A1B.

Walls. At bottom, border of single running split palmette stem, border of "linear" cusped roundels and panels with "linear" rhombs, half fleurs de lys, with fleurs de lys fig.62d variant and guilloche knots on all-over arabesque ground. On ribs narrow border of fine arabesques, chevron fig.17d variant. Engraved border on interior.

Handles. Probably a later addition, with clumsy knots and debased "signature" *'amal al-mu'allim Muhammad* (?) (pl.56). For discussion, see Chapter 1 Section 6.

Published: Mayer:1959,64 under Muhammad and 67 under Muhammad Badr (with bibliography); Auld:(Forthcoming).

(243) Bucket

Florence, Museo Nazionale del Bargello
Inv.no.Bronzi 837.

Brass, engraved and inlaid with silver. Dimensions unknown. Walls at acute angle to flat base, 3 ribs, handle lost but brackets extant. Group B.

Motifs : Base. From central 12-pointed star,,4-part design of knots developing into cusped ogees on all-over engraved ground, border of alternating fleurs de lys and cusped panels.

Walls. Lower main band "linear" divisions of cusped cruciform shape, half-motifs at border with half-fleurs de lys between. Horizontal arms of cruciform motifs extend into cusped ogees. All-over arabesque ground; upper band with "linear" fleurs de lys and cusped panels, with 4 small shields, with letters MO DE RA TA, half fleurs de lys at border. On curved lower wall appear panels with letters BEA SOA VIR TUS. Interior lip with engraved border.

Unpublished.

(244) Bucket

Plates 44,45,46.

London, Victoria and Albert Museum

Inv.no.1826-1888

Signed (1) *naqqash^{un}* (or *naqqasha*) *al-'abd* (2) *al-faqir Zain al-Din*.

Brass, engraved and inlaid with silver. D.27.5 cm, H.13.5 cm. Straight walls at slightly acute angle to flat base, 3 ribs, everted rim, zoomorphic handle from brackets. Group B.

Motifs : Base. From central 8-pointed star formed by 2 intersecting quatrefoils, 4-part design of complex fleurs de lys with cross-hatched ground (fig.61), half fig.62d at border, on all-over arabesque ground.

Walls. Four bands of "linear" divisions, cusped rhombs, fleurs de lys, ogees, alternately filled with "linear" arabesques, on minute arabesque ground, with fig.62c. Signature appears on interior of brackets. Engraved border on interior rim of similar motifs as walls; central interior roundels of split palmette arabesque (fig.33).

Published: Mayer:1959,91 no.II; Lightbown:1981,fig.312.

(245) Bucket

Present location unknown, previously said to be in the City Art Museum, now the Saint Louis Art Museum, Missouri

Reference Pijoan:1945,198,fig.264.

Brass, engraved and inlaid with silver. Dimensions unknown. Straight walls, gently rounded base, bail handle from brackets. Group B.

Motifs : Base. Unseen.

Walls. Plate in Pijoan obscure but it is possible to make out border fig.14c A4B visible above and below central band of "linear" divisions into cusped roundels, ogees and cruciform motifs with all-over arabesque ground.

Published: Pijoan:1945,198 pl.264, Mayer:1959,58,no.XVII.

(246) Bucket

London, British Museum

Inv.no.1865 12-9 1.

Brass, engraved and inlaid with silver. D.23 cm, H.11.2 cm. Walls with 2 bulbous ribs, low foot, everted rim, zoomorphic handle from brackets. Group B.

Motifs : Base. Unknown.

Walls. Bottom, border fig.13b A2B, lower rim with scrolling arabesque, upper rib with loose fig. 13b A2B variant, narrow border angular A1 variant above and below main band of alternate cusped rhombs and panels filled with individual arabesque grounds; rib, fig.13b A2B variant, on rim Appendix fig.T3e TF2c variant. Engraved border on interior rim Appendix fig.T7e TB8 variant.

Unpublished.

(247) Bucket

Plate 59.

London, British Museum

Inv.no.1865 12-9 2.

Brass, engraved and inlaid with black compound. D.23.5 cm, H.10.5 cm. Walls with 2 bulbous ribs, slightly concave between, everted rim, bail handle from brackets. Group B.

Motifs : Base. Unknown.

Walls. Successive bands of intricate arabesque borders Appendix fig.T7 variants (compare also fig.20b and fig.20c) on hatched ground. Inside 6 fish and whorl of 3 felines.

Unpublished.

(248) Bucket
London, British Museum
Inv.no.1878 12-30 726.

Brass, engraved, originally inlaid with silver. H.9.5 cm.
Bulbous body with flaring rim, modern handle. Group B.

Motifs : Base. Roundel with fig.44a variant.
Walls. 4 roundels as above, small roundels with 8-petalled
rosette between, fig.44a variant also in interstices, narrow border
fig.16c. FlA variant.
Unpublished.

(249) Bucket
Paris, Musée des Arts Décoratifs
Inv.no. unknown.

Brass, engraved, probably inlaid with silver. Dimensions unknown.
Straight walls with 2 bulbous ribs, zoomorphic handle from brackets.
Group C.

Motifs : Base. Unseen.
Walls. Main band with panels of naturalistic foliage to
either side of central roundel with European shield.
Published: Metman and Vandroyer:1910,pl.XIII fig.144.

(250) Bucket
Venice, Museo Correr
Inv.no.XII 6.

Brass, engraved, originally inlaid with silver and black compound.
D.(top) 15.2 cm, D.(base) 15.5 cm. Walls at acute angle to base,
short neck, low foot, brackets but handle replaced, cover. Group A.

Motifs : Base undecorated, foot with border A1.
Walls. 4 roundels with cusped fillet border, fig.44a
variant. Panels between of alternating strapwork arabesques from
central knot fig.2c K2C variant and debased knots fig.2c K2C and
fig.4a K3A, neck with narrow border fig.16d F2A variant.
Cover. Cusped and hinged section with cusped fleur de lys
and lotus blossom infill (compare cover to ewer for Zain al-Din
Jawhar al-Mu'ini in the Musée des Beaux-Arts de Lyon inv.no.D.669,
Melikian-Chirvani:1969,119-124, figs 19-25, especially fig.25),
surrounded on upper rim with fig.16d F2A variant.
Unpublished.

(251) Bucket

Plate 60.

Berlin, Museum für Islamische Kunst
Inv.no.B.72.

Brass, engraved and inlaid with silver. D.13 cm, H.16 cm. Bulbous body, rib at base of tall neck with flaring rim, zoomorphic handle from brackets. Group C or possibly B.

Motifs : Base. Unseen.

Walls. At widest part of walls, a series of "linear" cusped panels with unread inscriptions, script not only illegible but with incorrectly formed letters. Body divided into cusped cartouches, alternately with 4 knots K5, knots K1A between, irregular shapes, all-over arabesque ground. Rib border of fig.14b A4A variant; neck with panels similar to body but not inscribed, octagons between.

Published: Preussischer Kulturbesitz Katalog, Düsseldorf 1967, no.77.

(252) Bucket

London, Victoria and Albert Museum
Inv.no.M3-1946.

Brass, engraved, originally inlaid with silver. D.10.2 cm, H.15.2 cm. Bulbous body, tall neck, everted rim, handle from brackets. Group A.

Motifs : Base. Unseen.

Walls. At bottom of walls, fig.16b F1A variant with small roundels fig.52b; main band of 2 roundels with blank European shield, between panels fig.6a variant, neck border as at base.

Published: Melikian-Chirvani:1974/2.

(253) Bucket

Plate 57.

London, Victoria and Albert Museum
Inv.no.311-1897

Signed '*amal*^{un} (or '*amala*) *ibn al-mu'allim Muhammad*.

Brass, engraved and inlaid with silver. D.24.1 cm, H.12.8 cm. Concave walls, flat base, everted rim, zoomorphic handle from brackets. Group B.

Motifs : Base. Unseen.

Walls. At bottom, narrow border fig.16e F2B variant between plain fillets; walls with 6 small panels surrounded by cusped "linear" divisions, 5 with scrolling "linear" split palmettes on cross-hatched ground (compare fig.54b), 1 with signature also on cross-hatched ground. All-over ground of tight spiral arabesque. Narrow border inside rim Appendix fig.T6a TBl variant.

Published: Mayer:1959,63, under *Muhammad*.

(254) Bucket

Plate 54,55.

London, Courtauld Institute
Inv.no.82 (Gambier-Parry 100).

Brass, engraved and inlaid with silver. D.22.8 cm, H.11 cm.
Concave walls, rib round bottom, flat base, projecting rim, handle
(probably a replacement) from brackets. Group B.

Motifs : Base. Round small central disc a cusped dodecagon, from
points of which "linear" straps intersect to form successive bands of
12 "petals" or "rays", filled with arabesques and, in one circle,
cross-hatched incisions behind trefoils, narrow border fig.16c F2
variant.

Walls. Border fig.16c F2 variant, on rib border fig.21a
variant, narrow borders A1, fig.116c F2 variant, main band with
"linear" counter-change ogees filled alternately with split palmette
trefoils with cross-hatched ground and central guilloche knot K1A,
on all-over arabesque ground. Half-fleurs de lys at border.
Narrow border angular A1, top cusped zig-zag band filled with
alternately reversed trefoils, narrow Appendix fig.T5a TG4a on lip.
Engraved on interior with border Appendix fig.T7a TB4 variant.
Published : Robinson:1967,173,fig.90.

(255) Bucket

London, British Museum
Inv.no.1878 12-30 727.

Brass, engraved, originally inlaid with silver. D. 9 cm, H.(without
handle) 9 cm. Vase shaped walls, concave neck, footed. Group B.

Motifs : Base. 6 intersecting circles fig.57b variant surrounded by
border fig.16c F2 variant.

Walls. Two roundels with shields front and back, above and
below 6-petalled rosettes with 5 knots between. Neck chain fig.14c
A4B variant; rim fig.16e F2B.
Unpublished.

(256) Manuscript holder

Plate 61,62,63.

Venice, Museo Correr
Inv.no.XII 7.

Brass, engraved, originally inlaid with silver. D.4.7 cm, L.22.8
cm. Cylindrical, one end repaired. Group A.

Motifs : Top. Narrow border of "darts", stem fig.16b FlA variant
with small roundels fig.52i variant, broad band of knots fig.2d K2D
and fig.4f K3F variant on "curl" ground, narrow border FlA, end-disc
with chain of split palmette stems (compare fig.22b).

Base. At bottom, border of dart and shield alternation
fig.42a, narrow border FlA variant with small roundels fig.52i
variant, band of knots K2D and K3F variant, narrow border FlA, dart
and shield alternation fig.42a, narrow border FlA; end-disc with
dart and shield alternation (4-repeat fig.38a).
Unpublished.

(257) "Manuscript holder"

Plate 64.

London, Victoria and Albert Museum
Inv.no.1429-1855.

Brass, engraved and inlaid with silver. D.4.5 cm, L.25.2 cm.
Cylinder. Group A.

Motifs : Top and bottom identical. Narrow borders of "darts" and fig.16b FlA variant then division into bands, 2 on top, 4 on bottom, repeated roundels with fig.44a variant, 3 stems of trefoils in interstices; end-discs fig.44a variant.

Unpublished.

(258) "Rule"

Plate 70.

London, Victoria and Albert Museum
Inv.no.108-1888.

Brass, inlaid with silver and black compound. L.24.15 cm.
Rectangular. Group A.

Motifs : No divisions marks for measuring lengths, surface divided into 3 oblong panels alternating with 2 roundels, plain fillet frame, half-motif at borders, roundels fig.49a variant, 2 panels with dart and shield alternation fig.42a, 1 with octagonal interlace (El-Said and Parman:1976,21,fig.19 variant).

Unpublished.

(259) "Rose-water sprinkler"

Bologna, Museo Civico Medievale
Inv.no.2117.

Brass, engraved, inlaid with silver, gold and black compound. H.21.5 cm. Flattened body, from knop a tapering neck with soldered join clearly visible. Group B or possibly A.

Motifs : Body. All-over repeat of roundels with fig.44a variant, identical motif without frame in interstices. Knob diaper divisions, neck also diapered, both with divisions filled with fig.52g variant, band of debased knots K2 and K4 variants, diaper border at apex.

Published: Legati:1677,259-60,no.4.

(260) "Rose-water sprinkler"

Bologna, Museo Civico Medievale
Inv.no.2118.

Brass, engraved, inlaid with silver and black compound. H.23.6 cm. Flattened body, from knop a tapering neck with soldered join clearly visible. Group A.

Motifs : Body. Divided into horizontal bands; lowest and top borders fig.13c A4B variant with central roundel fig.49c variant, central band and shoulder with dart and shield alternation, fig.42a variant.

Neck. Knop A1 border, bottom neck dart border, diapers with fig.52g variant, band of scroll with dart-shaped motifs, at top diaper border and finally series of darts as at bottom.
Published: Legati:1677,259-60,4.

(261) "Rose-water sprinkler"
London, British Museum
Inv.no. unknown.

Brass, inlaid with silver and black compound. H.23.7 cm. Flattened body, from knop a tapering neck with soldered joint visible. Group A.

Motifs : Base. Engraved with central knot from which 8-pointed star develops, narrow border A1.

Walls. Bottom, narrow border fig.12d A1A, broad band with cusped medallions at centre front and back, 4 quatrefoils between linked by small roundels with 6-petalled whirling rosette; in medallions knots, motifs debased and confused.

Neck. Series of borders, knots and darts.
Unpublished.

(262) "Vase"
London, British Museum
Inv.no.1882 3-21 18.

Plate 71.

Brass, engraved, originally inlaid with silver. D.4.5 cm, H.10.5 cm. Rounded body with concave band under everted rim, footed. Group A.

Motifs : Foot. Narrow border fig.16e F2B.

Body. Main body has form of hemispherical box. Concentric bands of decoration, at bottom narrow border fig.16b F1A variant with small medallions fig.52i variant, main band with 4 roundels, 3 with dart-motif border forming roundel (compare Appendix fig.T6d TB4a), 1 with fig.44a variant, panels between with dart and shield alternation fig.42a variant and alternating knots fig.2d K2D and fig.4a K3A variant. Narrow border F1A under projecting fillet border, narrow borders A1, concave border fig.16b F1A variant (coarse in comparison to those on body), lip border A1.

Unpublished.

(263) Ewer

Plate 5.

Paris, Musée du Louvre

Inv.no.R.57

"Signed" (1) *al-mu'allim Mahmud -l-naqqash* (sic) (2) MAMUT.

Brass, engraved, inlaid with silver and black compound. H.17.7 cm, D.(opening) 8 cm. Ovoid body with central rib on foot with neck rising from rib, lipless, handle joined from rim to body. Group B.

Motifs : Foot. Narrow borders fig.16e F2B above and below border fig.13b A2B.

Body. Horizontal bands, lowest register series of ogival medallions with fine arabesque infill emanating from central knot K1a within cusped octagon on arabesque ground. Rib around widest part of belly with narrow incised A1 borders. Border fig.14c A4B at top and bottom of widest band, cut by terminals of large cusped ogival medallion on front of ewer with heavier split palmette arabesque infill. Between wide panel of chequered grid, each quare filled with split palmette quatrelle.

Neck. Rib border fig.13b A2B, wide border of fig.44a quatrelles laid over fig.14c A4B chain. Rim border A2B and narrow fig.16c F2. Inside incised "signatures", Arabic badly exercised, Latin upside down, both probably later additions. Narrow border fig.19b variant on interior rim.

Published: Mayer:1959,58,no.XVI.

(264) Ewer

Baltimore, Walters Art Gallery

Inv.no.54.2334

Signed *naqqash^{un}* (or *naqqasha*) *al-mu'allim Qasim*.

Brass, engraved, probably originally inlaid with silver, now gilt. H.19.1 cm. Ovoid fluted body, with foot, neck rising from rib, everted rim, lipless, handle attached to rim and body. Group B.

Motifs : Foot. Series of narrow borders, fig.16e F2B, fig.13b A2B, A1 and zig-zag.

Body. Plain fillet vertical ribs separate flutes which are filled with chain arabesque similar to fig.40. Round widest part of belly 3 small motifs in succession break arabesque chain : (1) panel with fig.54b variant; (2) cusped rhomb with single shield motif; (3) 8-pointed interlaced star. Neck rib fig.16e F2B between projecting plain fillets. Neck fluted as body but with alternate vertical border designs as infill A2A, A2B and scrolling FlA. Handle F2B. Inside rim border F2B and series of unconnected trefoils with paired dots between. Signature incised on interior rim.

Published: Mayer:1959,78 pl.XI under Qasim (with bibliography).

(265) Ewer

London, Victoria and Albert Museum
Inv.no.M.43.1940.

Brass, engraved, originally inlaid with silver and perhaps gold. H.20 cm. Globular body on high foot, neck with central rib, everted rim; straight spout, handle and flat cover with bird finial probably later additions. Group A or C.

Motifs : Foot. Borders fig.16b FlA variant, main band with European shield within scalloped fillet border, arabesque panels to either side.

Body. Horizontal bands, lowest counter-change fleurs de lys fig.72b variant with arabesque infill, rib round widest part of belly chevron Appendix fig.T5b TG5, border scrolling stem, fig.16b FlA variant.

Neck. Roundel with cusped fillet border with fig.35a variant, arabesque between. Neck rib chevron TG5. Upper neck 2 roundels with cusped fillet border, arabesque infill, with fig.44a variant between.

Published: Hildburgh:1941,fig.A.

(266) Ewer

London, Victoria and Albert Museum
Inv.no.M.32.1946.

Brass, engraved, inlaid with silver and black compound. H.35 cm. Globular body on tall foot, long neck with central rib, everted rim, domed cover. Zoomorphic handle and spout probably later additions. Group A.

Motifs : Foot. Narrow borders fig.16b FlA, fig.17d variants, main area divided by cusped frame into vertical panels filled with arabesques bearing trefoils.

Body. Horizontal bands divided by plain fillet frames; lowest register roundels with cusped frame filled with arabesques, arabesques in panels between, narrow borders FlA above and below main band knots fig.2d K2D and fig.4g K4A.

Neck. Large roundel with cusped frame filled with large lotus blossom fig.51a variant reversed, panels to each side of fig.6a variant. Rib with chevron Appendix fig.T5b TG5, narrow border fig.16b FlA variant with small roundel fig.52b; border knots fig.2g K2G variant and fig.4g K4A variant, rim Al.

Cover. Borders Al and fig.17d variant, band with roundel with arms of Molino family, between panel of knots K2 and K4 variants.

Published: Hildburgh:1941,fig.F; Victoria and Albert Museum, 50 Masterpieces of Metalwork, London, 1951,56-7,no.27.

(267) Ewer
Naples, Museo Capodimonte
Inv.no.11148/393.

Brass, engraved, originally inlaid with silver and black compound. Dimensions unknown. Globular body on high foot, tall neck with central rib, everted rim, zoomorphic handle probably a later addition. Group A.

Motifs : Foot. Horizontal bands of narrow borders fig.16b FlA variants, fig.6a variant, knots fig.2b K2B and fig.4g K4A variant with 2 roundels within cusped fillet frames fig.35a variant.

Body. Horizontal bands, narrow borders fig.16b FlA, broad bands knots K2B and K4A variants, with roundels fig.35a variant as before.

Neck. Large roundel with blank shield, panels fig.6a and knots K2B and K4A between. Rib with chevron Appendix fig.T5b TG5, narrow border fig.16c F2 variant, small roundels fig.52b, rim fig.16b FlA variant.

Published: Scerrato:1967,cat.no.36,fig.31.

(268) Ewer
Present location unknown
Sotheby's, London April 1985 no.120.

Brass, engraved and inlaid with silver and black compound. H.26.8 cm. Ovoid body, long neck, footed, with cover, s-shaped handle attached to rim and body, and s-shaped spout connected to body and neck by bridge. Group B.

Motifs : Foot. Horizontal borders fig.14c A4B, fig.17d, fig.16b FlA, fig.13b A2B variants.

Body. Also divided into horizontal registers between plain fillet frames. Bottom, cusped "linear" roundel with arabesque infill, between panels of repeated chains fig.13c A4B variant. Split palmette stems divide following band into oval panels filled with fine arabesques (compare figs.24,26,27) with areas between filled with minute interlaced strapwork round 6-pointed stars. Band with 4 cusped roundels filled with arabesques as above, between panels of knots K2D and K4A variants, and A4B chain.

Neck. Main band of neck divided into vertical sinuous stripes similarly individually filled with different scrolling arabesques; borders of cusped roundels with arabesques, narrow F2B and A4B to rim.

Cover. Knop finial, borders A2B variants.

Spout. Facetted, each facet with narrow border of A2B.

Published: Sothebys', London, April,1985, no.120; April, 1987 no.338.

(269) Ewer
Hamburg, Museum für Kunst und Gewerbe
Inv.no.1910,343.

Brass, engraved, inlaid with silver and black compound. H.28.5 cm.
Ovoid body on tall foot, neck with central rib, domed cover, s-shaped
spout and handle. Group B.

Motifs : Foot. Narrow borders fig.16c F2 variant, band subdivided by
"linear" straps into cusped medallions filled with arabesques, border
fig.16d F2A variant, band of quatrelobes with knot-infill.

Body. At bottom border fig.16b F1A variant, fig.17d
variant, main area subdivided by "linear" strapwork into cusped
medallion, each with individual arabesque infill centred on 6- or 8-
pointed star, dart or shield chain. Narrow plain fillet rib marks
high transition to neck.

Neck. Band of "linear" strapwork subdivisions as foot, rim
fig.13b A2B.

Cover. Narrow border fig.16d F2A variant, band of strapwork
subdivisions.

Spout. Fig.16e F2B.
Unpublished.

(270) Ewer
Venice, Museo Correr
Inv.no.XXII 13.

Brass, engraved, originally inlaid with silver. D.(base) 11.5 cm,
H.21 cm. Globular body with central rib on tall foot, flaring neck,
short spout and handle attached to rim and body. Cover probably a
later addition. Group B.

Motifs : Foot. Chevron border Appendix fig.T5b TG5, band of
scrolling "linear" arabesques on fine arabesque ground.

Body. Both above and below rib "linear" scrolling split
palmette arabesques on fine arabesque ground.

Neck. As body. Rim fig.16e F2B variant.
Unpublished.

(271) Ewer
Copenhagen, David Collection
Inv.no.51/1968.

Brass or bronze, engraved, inlaid with silver and black compound.
H.32.8 cm, D.16.8 cm. Cylindrical body on short foot, flat
shoulder, narrow cylindrical neck with angled spout and hoop handle
attached to rim and body. Group B.

Motifs : Unusual all-over repeat of scrolling and interlacing stems
with fleshy "lotus" blossoms contained within circles, a narrow
border of similar stems arranged as loose Al guilloche round foot and
transition between wall and shoulder. Loss of silver shows precious
metal was applied in both "linear" and "spatial" techniques.

Neck and spout. Similarly decorated with scrolling and interlacing stems with fleshy "lotus" blossoms. Residual boss on neck with 6-petalled rosette. Neck joins shoulder with repoussé gadroons, narrow rib of chevron Appendix fig.T5b TG5, border of 4-strand guilloche fig.12c.

Unpublished.

(272) Ewer

London, Victoria and Albert Museum

Inv.no.M.31-1946.

Brass, engraved, inlaid with silver and black compound. D.15.2 cm, H.28.2 cm. Ovoid body, spreading foot with sharply projecting central rib, neck with rib, pinched trefoil lip, s-shaped handle. Group B.

Motifs : Foot. "Linear" strapwork divisions into arched trellis on all-over fine arabesque ground, narrow borders on rib of single split palmette running stem (compare double Appendix fig.T3e TF2c), fig.17d variant, fig.16c F2 variant, chevron Appendix fig.T5b TG5.

Body. Divided by "linear" strapwork into 3 bands, bottom filled with split palmette stems forming dart-shaped motifs and K5 variant knots on all-over curling arabesque ground, cross-hatching behind small "darts"; border divided by "linear" straps into cusped rhombs and panels with central motifs of K5 variant, trefoils, "darts" on cross-hatched ground, areas between filled with tightly scrolling arabesques.

Neck. At base narrow borders A1, Appendix fig.T3e and TF2c, broad band of "linear" strapwork divisions round central guilloche A1 knot, chevron border TG5 on neck rib, border single TF2c as before, similar split palmette stems on lip.

Published: Hildburgh:1941,fig.C.

(273) Ewer

Frankfurt, Museum für Kunsthandwerk
Inv.no.5112a.

Brass, inlaid with silver. Dimensions unknown. Ovoid body on foot, short neck, pinched trefoil lip. Group B or C.

Motifs : Foot. Narrow border fig.16e F2B, "linear" strapwork divisions into cusped arched sections each with arabesque motif, plain fillet rib.

Body. Divided into three horizontal bands by double projecting plain fillets. Each division, and narrow band between parallel fillets, divided by "linear" straps into cusped intersecting rhombs, each section with split palmette arabesque infill. These have a European flavour, being ornate and attenuated, which may indicate either a later date or European workshop.

Shoulder and neck. Similar divisions as on body. Although the trefoil lip corresponds to cat.nos.278 and 280, the shortness of the neck may also indicate a European provenance.

Unpublished.

(274) Ewer

Present location unknown

Christie's, London, April 1989 no.387.

Brass, engraved and inlaid with silver. H.24 cm. Ovoid body on spreading foot with sharply projecting central rib, neck plain fillet rib, pinched trefoil lip, replaced handle. Group B.

Motifs : Foot. Borders of single zig-zag wire forming fig.17d, narrow A1 variants.

Body. Divided into 5 horizontal bands by plain fillet borders. Lowest band "linear" cusped counter-change divisions with scrolling arabesque ground, narrow borders of arabesques, band with cusped roundels filled with fig.49a variant, areas between with scrolling split palmette ground round guilloche K1A; main band divided by "linear" straps into ogival arcs with cusped "darts" between on scrolling arabesque ground.

Neck. Narrow border of scrolling arabesques, border fig.16e F2B, main area divided into vertical ogival panels alternately filled with "dart" chain fig.23a and scrolling arabesques. Above neck rib, narrow borders F2b and A1. Lip with similar divisions to upper body.

Published: Christie's, London, April, 1989, 168, no.387.

Appendix I

Pot-bellied Ewers

1. Berlin, Museum für Islamische Kunst
Inv.no.3606
AH 861/1456-57 (or 891/1486-87)
Signed by Habib Allah ibn 'Ali Baharjani
Inscribed with name of Khaqan, patron Iskander ibn Muhammad Mirza
Motifs : TG4, TG1, TBlA, TA1, cross-hatched ground.
2. London, Victoria and Albert Museum
Inv.no.943-1886
AH 866/1461-62
Signed by Habib Allah ibn 'Ali Baharjani
Inscribed with good wishes on neck, 2 odes by Hafiz
Motifs : TBlA, TA1, TBl, cross-hatched ground.
3. Istanbul, present location unknown
Inv.no. not known
AH 871/Oct-Nov 1466
Signed by Husain ibn Shamsi (Shams al-Din)-i Shahabi (Shahab al-Din) al-Birjandi
Motifs : TK5, TH1.
4. Istanbul, previously Topkapu Sarai, now Türk ve Islam Müzesi
Inv.no. not known
AH 872/Dec 1467-Jan 1468
Signed by Shir 'Ali ibn Muhammad Dimashqi
Inscriptions : unread
Motifs : TD1, TF1, TJ1, TL1.
5. Nuhad es-Said Collection
Inv.no.25
AH 889/1484
Signed by al-'Abd Husain ibn Mubarak Shah
Inscriptions : unread
Motifs : TF2, TH1, TA1a, TH2a, TB6, TB2, cross-hatched ground.
6. Jerusalem, L.A. Mayer Memorial Institute.
Inv.no.3958
AH 893/1487
Signed by Qutb al-Din Muhammad Quhistani (or Qutbi (al-Din)-i Najmi (al-Din) Quhistani
Inscriptions : unread
Motifs : TH1C, TA3, TK1, TB5a, TF5, cross-hatched ground.
7. Art market, 1985
Sotheby's, London lot 113
AH 896/1490
Signed by al-'Abd Ruhallah Shah 'Ali
Inscriptions : unread
Motifs : TF1, TB3, cross-hatched ground.

8. Keir Collection
No.145
AH 901/1495
Signed by 'Abd al-Khalil Qutb al-Din
Inscription : unread
Motifs : TB5, TF2.
9. London, British Museum
Inv.no.1962 7-18 1
AH 903/1497
Signed by Muhammad ibn Ibrahim al-Ghuri (or Muhammad ibn Shamsi (Shams al-Din) al-Ghuri
Inscription on neck with name of Khaqan "the sultan son of the sultan .. Mu'izz al-Din Abu'l Ma'ali Sultan Husayn Bahadur", made for Sultan Husayn Bayqara, read by Dr Melikain-Chirvani:1982,244,n.10, and on body
Motifs : TF2, TB4 variant, TH2 variant, TB5 (lattice).
10. Art market October 1972
Christie's, London, lot 77
AH 908/1503
Signed by 'Ala al-Din wa Shams al-Din Muhammad al-Birjandi
Inscriptions : unread
Motifs : unknown.
11. Berlin, Museum für Islamische Kunst
Inv.no.I.6052
AH 910/1505
Signed by 'Ala al-Din wa Shams al-Din Muhammad al-Birjandi
Inscriptions : unread
Motifs : TH2a, TB7, TJ1.
12. London, British Museum
Inv.no.1878 12-30 732
AH 917/1511
Unsigned
Inscriptions : unread
Motif : TF2a, T11f, TH2h, debased lotus.
13. Washington DC, Freer Gallery of Art
Inv.no.77.4
AH 930/1523
Signed (or owned) by Hafiz 'Ali
Inscriptions : unread
Motif : TH2 variant.
14. London, Victoria and Albert Museum
Inv.no.241-1896
Undated
Signed by Qutb al-Din Muhammad b. 'Abdullah
Inscriptions : distichs by Daqiqi and Firdausi
Motifs : TF2a, TG4 variant, TF3, TH2a, TH2b.

15. London, Victoria and Albert Museum
Inv.no.433-1876
Undated
Inscriptions : Good wishes, on body "the most glorious sultan,
the glorified Khaqan, Sultan of the Arabs and Iranians Jalal"
read by Dr Melikian-Chirvani:1982,255
Motifs : Y-interlace, TB7.
16. London, Victoria and Albert Museum
Inv.no.750-1889
Undated
Unsigned
Inscriptions : Good wishes, unread on body
Motifs : TF2, TB5, TH2c, cross-hatched ground.
17. London, Victoria and Albert Museum
Inv.no.M.131-1929
Undated
Unsigned
Inscriptions : distich by Daqiqi
Motifs : peony, lotus, cross-hatched ground.
18. London, Victoria and Albert Museum
Inv.no.158-1894
Undated
Unsigned
Inscriptions : unread
Motifs : (silver-gilt) TA4, TF5c, ring-punched ground.
19. Art market, April 1984
Sotheby's, London, lot 170.
Undated
Signed by Shah 'Ali Chapar bi 'Amr on base
Inscriptions : unread
Motifs : TF2, TH2 variant, hatched ground.
20. Art market, 1985
Christie's, London, lot 402
Undated
Unsigned
No inscriptions
Motif : TH2 variant (lattice).
21. Keir Collection
No.146
Undated
Unsigned
Inscriptions : unread
Motif : TH2 variant (lattice).

22. Keir Collection
No.147
Undated
Unsigned
Inscriptions : good wishes
Motifs : TA2, TA5, TD6, TG2, cross-hatched ground.
23. Keir Collection
No.148
Undated
Unsigned
No inscriptions
Undecorated.
24. Art market April 1985
Sotheby's, London, lot 126
Undated
Unsigned
Inscription : on lip *tughra* of Selim I 1512-1520
Motifs : (silver) TF5, TF5a, ring-punched ground.
25. Florence, Museo Nazionale del Bargello
Inv.no.B289
Undated
Unsigned
Inscriptions : unread
Motifs : TB4, TB5, TF2 variant, TH2d, cross-hatched ground.
26. Seattle, Art Museum
Inv.no.54.35
Undated
Unsigned
No inscriptions
Motifs : Td2, TF2a, TH2e, TD3, cross-hatched ground.
27. Berlin, Kunstgewerbemuseum Plate 47.
Inv.no.11.53
Undated
Unsigned
Inscriptions : unread
Motifs : alternate knots and twists, TD4, TD5, TA5, TK2, TK3.
28. Copenhagen, David Collection
Inv.no.D21/1986
Undated
Unsigned
Inscription : unread
Motifs : TH2 variant, F2c, F2a, cross-hatched ground.
29. Copenhagen, David Collection
Inv.no.34/1986
Undated
Unsigned
No inscription
Motifs : TG4, TG4a, TH1d.

30. Hannover, Kestner Museum
Inv.no. 1891,35
Undated
Unsigned
Inscriptions : unread
Motifs : TF3, TF2, TH2 variant.
31. New York, Metropolitan Museum of Art
Inv.no.91.1.607
Undated - but probably 1510-1524
Unsigned
Inscriptions : prayer to 'Ali (Komaroff:1979-80,13)
Motifs : TH1 variant.
32. New York, Metropolitan Museum of Art
Inv.no.91.1.611
Undated
Unsigned
No inscriptions
Motifs : TD9, TJ1, TH1 variant, TF2b.
33. New York, Metropolitan Museum of Art
Inv.no. 65.55
Undated
Unsigned
No inscriptions
Motifs : TH2 variant, TH1a, TF2, TB5, cross-hatched ground.
34. Art market
No number
Undated
Signed by Bashir Muhammad
Inscriptions : unread
Motifs : TA1 variant, TK1, TB1 variant, TG4.
35. London, British Museum
Inv.no.1878 12-30 730
Undated
Unsigned
Inscriptions : unread
Motifs : TF2c, TH2 variant.
36. London, British Museum
Inv.no.1878 12-30 731
Undated
Unsigned
Inscriptions : unread
Motifs : TH2 variant, TB5, TF2e.
37. Art market, October 1986
Sotheby no.176
AH 918/1512
Signed by 'Ali ibn Muhammad 'Ali Shahab al-Ghuri
Inscriptions : unread
Motifs : TH1, TG4, TF4, cross-hatched ground.

38. Art market, October 1988
Christie's, London, lot 303
Undated
Unsigned
Inscriptions : later owner's mark, unread
Motifs : TH2d, TF2, TB5, cross-hatched ground.
39. Private collection (Scerrato)
No details known.
40. Lahore Museum
No details known.
41. Leningrad, State Hermitage Museum
Inv.no.Up.2045
Undated
Unsigned
No inscription
Motifs : All-over diaper, fig.T11f variant, fig.T12d TA2 variant.
42. Leningrad, State Hermitage Museum
Inv.no.Up.2042
(Cover only)
Undated
Unsigned
No inscription
Motifs : Fig.T9 TH1b variant, fig.T11h variant.
43. Leningrad, State Hermitage Museum
Inv.no.VC 313
Undated
Unsigned
No inscription
Motifs : Fig.T9 TH2 variant, fig.T2a TA1 variant, fig.T3a Tfl variant.
44. Private Collection (Aron)
No.34
Undated
Unsigned
Inscription : Misformed repetition of The Sultan the Learned
Motifs : Large scale stems with lotus.
45. Private Collection (Aron)
No.23
Undated
Unsigned
Inscription : *tughra* stamp on rim
Motifs : Large-scale single scrolling stem, T8b TF5b variant.

Appendix II

Spherical incense Burners.

1. London, British Museum
Inv.no.78 12-30 682.
Made for Badr al-Din Baysari.
Published : Lane-Poole:1886/2,209-13 and fig.81, Migeon:1907, vol. 2,204, fig.160, Migeon:1929, vol. 2,70 and fig.249; Wiet 1932 app. no. 87; Mayer:1933,112; Barrett:1949,xiv-xv,xxiii,pl.22; Arts: 1976, no. 210; Atil:1981,58-59, pl.10; Atil:1985,172, fig.62.
2. "Rome, Palazzo Barberini".
D.S. Rice archive 169/24, photograph no.169/9.
Inscribed on super-imposed apex medallion "SEPTEBRIS . 7A . M . D . L . x . x . xix . ROMA ANNO DOMINI" On base similar medallion inscribed "ROMA ANNO DOMINI 1589". Appearance close to Bidri ware.
3. "Rome, Palazzo Barberini."
D.S. Rice archive no.169/25, photograph 169/10.
Similar to no.2.
4. Bologna, Museo Civico Medievale.
D.S. Rice Archive no.169/4.
Similar to nos.2,3.
5. New York, Metropolitan Museum of Art
Inv.no.17.190.2095. J. Pierpont Morgan Bequest.
D.S. Rice Archive no.169/18, photographs 169/18 1-6.
Il-Khanid period.
6. Florence, Museo Nazionale del Bargello, Fig. 28b
(previously Museo degli Argenti in Palazzo Pitti)
D.S. Rice Archive no.169/12, photographs 169/12 1-3.
Made for Il-Khan Abu Sa'id (716-736/1316-1335). See Baer:1973.
Published : M.A. Lanci, Trattato delle simboliche Rappresentazione Arabiche II, 1846, pl.XLII reproduced in Pope and Ackerman:1938, vol.III,2522, entry no. 20; fig.843, 2529 reproduces Lanci's drawing. Nisan Tasi inscription (c) and the incense burner both bear honorific title *Bahadur Khan*, which Sultan took only after successful campaigns in Rabi' I 719/ May-June 1319. See Pope and Ackerman:1938, vol. VI, pl.1003 for silk textile, listed as being in the Dom- und Diozesan Museum, Vienna, part of the burial robe of Duke Rudolf IV of Austria and also bearing the name of Abu Sa'id.

7. Florence, Museo Nazionale del Bargello
Inv.no 370C.
Half only.
D.S. Rice Archive no.169/17, photographs 169/17 1-6.
Made for Bahadur al-Hamawi (d. 693/1293)
Inscription : "This is one of the objects made for His Honourable and High Excellency ("*janab*") our Lord the Great Amir the Honoured the Well-Served, Saif al-Din Bahadur al-Hamawi, Chief of the Corps of *Jamdars* of al-Malik al-Nasir." According to Professor Mayer (95-96) there is a problem regarding the title.
Published: Mayer:1933, pl. XVII. Central motif surrounded by six roundels showing personifications of the planets. See Rice:1954, or for example *Arts*:1976, no.215, no.202, brass pen-box inlaid with silver, made by Mahmud ibn Sunqur AH 680/1281, British Museum No. 916-235.
8. London, Courtauld Institute
Inv.no.207, Gambier-Parry cat.no.82.
Personifications of planets.
Published: Robinson:1967,169, fig.85.
9. Venice, Museo Correr, figs.41,50
Inv.no.XII 9. D.S. Rice Archive no.169/11.
Central motif Mamluk blazon, two polo sticks over curved sword with sphere (*jashnigir*, see Mayer:1933,5) beneath. Round this an inscription apparently reading *al-Malik al'a al-'alim* repeated in debased form.
10. Turin, Museo Medievale
Inv.no.327/B.
Decoration includes four roundels, top and bottom, (a) cross-legged figure with double-headed eagle behind, reminiscent of the apotheosis figures in the ceiling of the Capella Palatina, Palermo c. 1140 (see Monneret de Villard:1950,245; Ettinghausen:1977,46; Grube:1966, col.pl.12); (b) figure on horseback attacked by quadruped (on bottom hemisphere, horseman with hawk); (c) two figures on elephant; (d) four birds with necks interlaced (see Baer:1983,172-175; Rice:1950,pl. 14, fig.1; Rice:1955/2; Ettinghausen:1957,347-48, pls.21, 34). For possible astrological significance of figures see Cahn:1978,22-47, 96-97,121-122).
11. Present location unknown
D.S. Rice Archive no.169/22
Inlaid decoration centres on roundel round which 6 intersecting circles form "petals" (compare fig.57a). In centre of roundel a 6-legged swastika and around it a circular inscription (unread) beginning "Glory to our lord the sultan..." In the petal divisions lotus blossoms alternately with parallel and crossed petals (compare figs 51a and c). In the outer sections alternate roundels with swastikas and paired affronted birds. Walls of sphere unseen.
Unpublished.

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Figures

Frontispiece. Copenhagen, David Collection, inv.no.24/1970.

(1) Guilloche knots

- a. Florence, Museo Nazionale del Bargello, inv.no.292C.
- b. Florence, Museo Nazionale del Bargello, inv.no.366C.
- c. Florence, Museo Nazionale del Bargello, inv.no.292C.
- d. Bologna, Museo Civico Medievale, inv.no.2101.
- e. ditto.
- f. London, Victoria and Albert Museum, inv.no.2290-1855.

(2) Calligraphic knots

- a. Florence, Museo Nazionale del Bargello, inv.no.292C.
- b. Washington, Freer Gallery of Art, inv.no.39.58.
- c. Venice, Museo Correr, inv.no.XIII 36.
- d. Berlin, Museum für Islamische Kunst, inv.no.I.8/71
- e. Washington, Freer Gallery of Art, inv.no.39.58.
- f. Hamburg, Museum für Kunst und Gewerbe, inv.no.1882-225.
- g. Venice, Museo Correr, inv.no.XIII 26.

(3) Hexagon based design, Copenhagen, David Collection, inv.no. 24/1970.

(4) Twisted ropes

- a. Washington, Freer Gallery of Art, inv.no.39.58
- b. Allan:1986, Aron no.17.
- c. Bologna, Museo Civico Medievale, inv.no.2127.
- d. Florence, Museo Nazionale del Bargello, inv.no.292C.
- e. Naples, Museo Capodimonte, inv.no.780.
- f. Berlin, Museum für Islamische Kunst, inv.no.I.8/71.
- g. Naples, Capodimonte, inv.no.112090/1129.
- h. Florence, Museo Nazionale del Bargello, inv.no.292C.
- i. Copenhagen, David Collection, inv.no.24/1270.

(5) Comparative knots

- a-d. Turin, inv.no.327/B.

(6) Calligraphic derivations

- a. London, Victoria and Albert Museum, inv.no.1686-1888.
- b. Florence, Museo Nazionale del Bargello, inv.no.367C.
- c. Berlin, Museum für Islamische Kunst, inv.no.I.8/71.
- d. London, Victoria and Albert Museum, inv.no.915-1884.
- e. Venice, Museo Correr, inv.no.XI 1344.

(7) Hamburg, Museum für Kunst und Gewerbe, inv.no.1882-225.

(8) Naples, Museo Capodimonte, inv.no.112113.

(9) Woven designs

- a. Naples, Museo Capodimonte, inv.no.781.
- b. Munich, inv.no.L.433.
- c. Copenhagen, David Collection, inv.no.24/1970.

(10) Geometric interlace

- a. Venice, Museo Correr, inv.no.XII 11.
- b. London, Courtauld Institute, inv.no.95 (Gambier-Parry 85).

(11) Venice, Museo Correr, inv.no.XIII 36.

(12) Guilloche borders

- a. London, Courtauld Institute, inv.no.91 (Gambier-Parry 199).
- b. Three strand construction.
- c. Jerusalem, L.A. Mayer Memorial Institute, inv.no.M.247-76.
- d. Dublin, National Museum of Ireland, inv.no.220-1899.

- (13) Guilloche variants
 - a. Construction.
 - b. Baltimore, Walters Art Gallery, inv.no.54.2236.
 - c. Jerusalem, L.A. Mayer Memorial Institute, inv.no.M.247-76.
- (14) Guilloche chain
 - a. Construction.
 - b. Jerusalem, L.A. Mayer Memorial Institute, inv.no.247-76.
 - c. London, British Museum, inv.no.1895 5-21 2.
- (15) Border scrolls
 - a. Milan, Museo Poldi Pezzoli, inv.no.765.
 - b. ditto.
 - c. Nisan Tasi, after Baer:1973, fig.44.
- (16) Border scrolls
 - a. Allen:1986, Aron no.17.
 - b. Washington, Freer Gallery of Art, inv.no.39.58.
 - c. Florence, Museo Nazionale del Bargello, inv.no.292C.
 - d. Bologna, Museo Medievale, inv.no.2114.
 - e. Paris, Musée du Louvre, inv.no.OA 6009.
- (17) Border running stems derived from lotus
 - a. Paris, Musée du Louvre, inv.no.LP.16.
 - b. London, British Museum, inv.no.1851 1-4 1.
 - c. London, British Museum, inv.no.1881 8-2 20.
 - d. Allen:1986, Aron no.19.
- (18) Bird borders
 - a. Paris, Musée du Louvre, inv.no.LP.16.
 - b. New York, Metropolitan Museum of Art, inv.no.91.1.581.
- (19) Borders, Mahmud al-Kurdi salvers
 - a. Leningrad, State Hermitage, inv.no.VC.235.
 - b. ditto
 - c. Paris, Musée du Louvre, inv.no.OA 7526.
 - d. London, British Museum, inv.no.1875 12-30 705.
- (20) Borders of trellis interlace
 - a. London, Courtauld Institute, inv.no.91 (Gambier-Parry 199).
 - b. Victoria and Albert Museum, inv.no.190-1951
 - c. London, Courtauld Institute, inv.no.91 (Gambier-Parry 199).
- (21) Borders repeated to fill roundel or medallion
 - a. London, Courtauld Institute, inv.no.91 (Gambier-Parry 199).
 - b. Jerusalem, L.A. Mayer Memorial Institute, inv.no.M.247.76.
- (22) Border elements repeated
 - a. (Timurid) Copenhagen, inv.no.D.21.1986.
 - b. Milan, Museo Poldi Pezzoli, inv.no.1651.
 - c. Ditto.
 - d. (Timurid) New York, Metropolitan Museum of Art, inv.no.91.1.607.
 - e. Ditto.
 - f. (Timurid) New York, Metropolitan Museum of Art, inv.no.65.55.
- (23) Arabesque infills
 - a. Baltimore, Walters Art Gallery, inv.no.54.2236.
 - b. Ditto.
 - c. Ditto.
- (24) Arabesque ground, Leningrad, State Hermitage, inv.no.VC.235.
- (25) Arabesque ground, London, Victoria and Albert Museum, inv.no.1522-1888.
- (26) Arabesque ground, London, British Museum, inv.no.1878 12-30 705.

- (27) Arabesque ground, Paris, Musée du Louvre, inv.no.OA 7526.
- (28) Arabesque
 - a. London, Victoria and Albert Museum, inv.no.2290-1855.
 - b. Florence, Museo Nazionale del Bargello, Rice archive 169/12.
- (29) a. London, Courtauld Institute, inv.no.45 (Gambier-Parry 69).
b. Paris, Musée des Arts Décoratifs, inv.no.20331.
- (30) Geometric grid laid over scrolling stem
 - a. London, Victoria and Albert Museum, inv.no.M.190-1951.
 - b. London, British Museum, inv.no.1891 6-23 5.
- (31) Paris, Musée des Arts Decoratifs, inv.no.20331.
- (32) a. Berlin, Museum für Islamische Kunst, inv.no.I.3611.
b. Edinburgh, Royal Scottish Museums, inv.no.1870 27-3.
- (33) London, Victoria and Albert Museum, inv.no.1826-1888.
- (34) Roundel motifs
 - a. London, Victoria and Albert Museum, inv.no.M.190-1951.
 - b. London, Victoria and Albert Museum, inv.no.1686-1888.
- (35) Roundel motifs
 - a. London, Victoria and Albert Museum, inv.no.1686-1888.
 - b. Florence, Museo Nazionale del Bargello, inv.no.292C.
 - c. Allen:1986, Aron no.19.
 - d. Paris, Musée du Louvre, inv.no.6314.
- (36) Dart and Shield alternation
 - a. Construction (London, Courtauld Institute, inv.no.86, Gambier-Parry 67).
 - b. München, Museum für Volkerkunde, inv.no.L.433.
 - c. Ditto.
- (37) Naples, Museo Duca di Martina, inv.no.1041.
- (38) Dart and Shield alternation
 - a. Venice, Museo Correr, inv.no.XII 7.
 - b. London, Courtauld Institute, inv.no.86 (Gambier-Parry 67).
- (39) Dart and Shield alternation
 - a. Florence, Museo Nazionale del Bargello, inv.no.371C.
 - b. London, Courtauld Institute, inv.no.86 (Gambier-Parry 67).
- (40) Dart and Shield alternation to fit panel, Boston, Museum of Fine Art, after Rice:1957/3, fig.39.
- (41) Dart and Shield variations
 - a. Venice, Museo Correr, inv.no.XI 9.
 - b. Bologna, Museo Medievale, inv.no.2116.
 - c. London, British Museum, inv.no.1878 12-30 647, after Rice: 1957/3, pl.16.
 - d. Paris, Musée du Louvre, after Rice:1957/3, pl.13c.
- (42) Dart and Shield variations
 - a. München, Museum für Volkerkunde, inv.no.L.433.
 - b. Cairo, Dome of Mausoleum of Amir Gawhar al-Qunuqbayi, after Kessler:1976, pl.18.
 - c. New York, Metropolitan Museum of Art, inv.no.165.
- (43) Split palmette - rumi quatrellobe
 - a. Florence, Museo Nazionale del Bargello, inv.no.292C.
 - b. Florence, Museo Nazionale del Bargello, inv.no.299C.
- (44) Split palmette - rumi quatrellobe
 - a. Copenhagen, David Collection, inv.no.63/1979.
 - b. (Timurid) Paris, Musée du Louvre, after Komaroff:1984,pl.60.
 - c. (Timurid) New York, Metropolitan Museum of Art, inv.no.65.55.
 - d. München, Museum für Volkerkunde, inv.no.26.N.51.

- (45) Split palmette - rumi quatrelobe
 - a. After Yetkin:1981, diag.33.
 - b. After Yetkin:1981, diag.17.
- (46) Split palmette - rumi quatrelobe
 - a. After Yetkin:1981, diag.40.
 - b. After Yetkin:1981, diag.41.
- (47) Split palmette - rumi quatrelobe, after Yetkin:1981, diag.24.
- (48) Split palmette quatrelobe variations
 - a. Baltimore, Walters Art Gallery, inv.no.54.527.
 - b. Florence, Museo Nazionale del Bargello, inv.no.292C.
 - c. Rice archive 169/13 (previously Harari collection).
- (49) Split palmette quatrelobe variations
 - a. Milan, Museo Poldi Pezzoli, inv.no.765.
 - b. Rice archive 169/20.
 - c. Milan, Museo Poldi Pezzoli, inv.no.765.
- (50) Lotus
 - a. Venice, Museo Correr, inv.no.XI 9.
 - b. London, Victoria and Albert Museum, inv.no.1686-1888.
 - c. London, British Museum, inv.no.1851 1-4 1.
- (51) Lotus
 - a. Jerusalem, L.A. Mayer Memorial Institute, inv.no.M.247.76.
 - b. London, Victoria and Albert Museum, inv.no.915-1884.
 - c. London, Victoria and Albert Museum, inv.no.915-1884.
 - d. ditto.
 - e. London, Victoria and Albert Museum, inv.no.740-1898.
 - f. Bologna, Museo Medievale, inv.no.2115.
- (52) Lotus and peony
 - a. Bologna, Museo Medievale, inv.no.2114.
 - b. Berlin, Museum für Islamische Kunst, inv.no.I.8/71.
 - c-e. Variations of peony blossoms.
 - f. Allan:1986, Aron no.19.
 - g. Berlin, Museum für Islamische Kunst, inv.no.I.8/71.
 - h. Bologna, Museo Civico Medievale, inv.no.2111.
 - i. London, Courtauld Institute, inv.no.67 (Gambier-Parry 73).
- (53) London, Victoria and Albert Museum, inv.no.915-1884.
- (54) a. Cairo, previously Harari Collection, Rice Archive 169/13.
b. Carpet design by Bihzad, after Briggs:1946, fig.16.
- (55) Spandrel motifs
 - a. Düsseldorf, inv.no.174/1211G.
 - b. Venice, Museo Correr, inv.no.XI 9.
 - c. Jerusalem, L.A. Mayer Memorial Institute, inv.no.
 - d. Bologna, Museo Civico Medievale, for Najm al-Din 'Umar al-Badri.
 - e. Milan, Museo Poldi Pezzoli, inv.no.765.
 - f. London, Victoria and Albert Museum, inv.no.206.1892.
 - g. Ditto.
- (56) Fish whorl
 - a. Venice, Museo Correr, inv.no.XII 35.
 - b. Allan:1986, Aron no.14.
- (57) Intersecting circles
 - a. Paris, Musée du Louvre, inv.no.7438.
 - b. Rice Archive 169/20.
- (58) Intersecting circles Allan:1986, Aron no.17.

- (59) Intersecting circles
 - a. Florence, Museo Nazionale del Bargello, inv.no.369C.
 - b. Milan, Museo Poldi Pezzoli, inv.no.765.
 - c. Copenhagen, David Collection, inv.no.63/1979.
- (60) Cairo, Dome of Qa'itbay, after Kessler:1976, pl.34.
- (61) London, Victoria and Albert Museum, inv.no.1826-1888.
- (62) Split palmette with subdivided leaf
 - a. London, Victoria and Albert Museum, inv.no.905-1907, after Rice:1950,fig.7.
 - b. Paris, Musée des Arts Decoratifs, after Rice:1950,fig.8.
 - c. London, British Museum, inv.no.1891 6-23 3.
 - d. Ditto.
 - e. London, Victoria and Albert Museum, inv.no.905-1907.
 - f. London, Victoria and Albert Museum, inv.no.740-1898.
 - g. Athens, Benaki Museum, after Rice:1953/1,fig.3.
 - h. London, British Museum, inv.no.1891 6-23 3.
- (63) Ankara, Etnografya Müzesi, inv.no.7591, after Rice:1955/1,pl.VII.
- (64) Ditto, after Rice:1955/1,pl.VI.
- (65) New York, Metropolitan Museum of Art, inv.no.36.251961.
- (66) London, British Museum, inv.no.1891 6-23 3.
- (67) London, Victoria and Albert Museum, inv.no.M.719.1910.
- (68) Paris, Musée du Louvre, inv.no.OA.7525.
- (69) Fleur de lys
 - a. Hamburg, Museum für Kunst und Gewerbe, inv.no.1878-739.
 - b. Florence, Museo Nazionale del Bargello, inv.no.317C.
 - c. Ditto.
 - d. Hamburg, Museum für Kunst und Gewerbe, inv.no.1878-739.
 - e. After Migeon:1903,pl.28 bottom right.
- (70) Fleur de lys repeated
 - a. Cividale del Friuli, Museo Archeologico, inv.no.4441.
 - b. Baltimore, Walters Art Gallery, inv.no.54.2236.
- (71) Fleur de lys repeated
 - a. Bologna, Museo Medievale, inv.no.2110.
 - b. Baltimore, Walters Art Gallery, inv.no.54.2236.
- (72) Counter-change motifs
 - a. London, Victoria and Albert Museum, inv.no.M.177-1976.
 - b. Copenhagen, David Collection, inv.no.D22/1986.
- (73) Counter-change motifs
 - a. Cairo, Dome of Skaykh 'Abdullah al-Manifi, after Kessler:1976, pl.27.
 - b. London, Victoria and Albert Museum, inv.no.1325-1856.
- (74) London, British Museum, inv.no.1895 5-21 2.
- (75) Ditto.
- (76) London, Victoria and Albert Museum, inv.no.374-1897.
- (77) Leningrad, State Hermitage, inv.no.VC.235.
- (78) Baltimore, Walters Art Gallery, inv.no.54.527.
- (79) a-b. London, British Museum, inv.no.1878 12-30 711.
- (80) a. London, British Museum, inv.no.1895 5-21 2.
 - b. London, British Museum, inv.no.1895 5-21 3.
- (81) a. London, Victoria and Albert Museum, inv.no.2290-1884.
 - b. Cividale del Friuli, Museo Archeologico, inv.no.4441.
- (82) a. London, Courtauld Institute, inv.no.76 (Gambier-Parry 79).
 - b. Naples, Museo Capodimonte, inv.no.780.

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